



Bhagavad Gita: Chapter 13, Verse 23

*upadrashtanumanta cha bharta bhokta maheshvarah
paramatmeti chapy ukto dehe 'smin purushah parah*

◆ **TRANSLATION**
BG 13.23: Within the body also resides the Supreme Lord. He is said to be the Witness, the Permitter, the Supporter, Transcendental Enjoyer, the ultimate Controller, and the Paramatma (Supreme Soul).

◆ **COMMENTARY**
Shree Krishna has explained the status of the jivatma (individual soul) within the body. Now in this verse He explains the position of the Paramatma (Supreme Soul), who also resides within the body. He previously mentioned the Paramatma in verse 13.3 as well, when He stated that the individual soul is the knower of the individual body while the Supreme Soul is the knower of all the infinite bodies.
The Supreme Soul, who is located within everyone, also manifests in the personal form as Lord Vishnu. The Supreme Lord in His form as Vishnu is responsible for maintaining this creation. He resides in the Kshir Sagar (the ocean of milk), at the top of the universe in His personal form. He also expands Himself to reside in the hearts of all living beings as the Paramatma. Seated within, He notes their actions, keeps an account of their karmas, and bestows the results at the proper time. He accompanies the jivatma (individual soul) to whatever body it receives in each lifetime. He does not hesitate in residing in the body of a snake, a pig, or insect. The Mundakopanishad states:

*dva suparna sayuja sakhaya
samanam vriksham parishasvajate
tayoranyah pippalam svadvattya-
nashnamanyo abhichakshiti
samane vrikshe purusho nimagno-
'nishaya shochati muhyamanah
jushitam yada pashyatyanyamisha-
masya mahimanamiti vitashokah (3.1.1-2)*

"Two birds are seated in the nest (heart) of the tree (the body) of the living form. They are the jivatma (individual soul) and Paramatma (Supreme Soul). The jivatma has its back toward the Paramatma, and is busy enjoying the fruits of the tree (the results of the karmas it receives while residing in the body). When a sweet fruit comes, it becomes happy; when a bitter fruit comes, it becomes sad. The Paramatma is a friend of the jivatma, but He does not interfere; He simply sits and watches. If the jivatma can only turn around to the Paramatma, all its miseries will come to an end." The jivatma has been bestowed with free will i.e. the freedom to turn away or toward God. By the improper use of that free will the jivatma is in bondage, and by learning its proper usage, it can attain the eternal service of God and experience infinite bliss.



Is it your Birthday Today?

SEPTEMBER 13

Influenced by number 4 and the planet Uranus. You are active, practical, enthusiastic, authoritative and energetic. You are intelligent and can do wonders in your profession with your ability and proficiency, but you need to control your tendencies to behave impatient, whimsical and stubborn at times. New proposals and assignments for you this year. Business will flourish and financial gains will lift your confidence. Legal matters that have been haunting your mind will settle to your satisfaction. Promotions and increments are likely for some. Relationship with somebody close might get strained over trivial issues. Romance and new alliances look likely for those unattached. Elders and children in the family will demand a lot of your attention. Health of your spouse may cause concern and anxiety. Sportsmen and artists can look forward to some fame towards the end of the year. July, November, February and May will be significant.

Life

Mulberry Shows Surprising Effects on Gut Bacteria and Metabolism

Mulberry’s potential benefits may begin with gut microbes, but the way it is prepared could make all the difference.

RESearchers are examining whether bioactive compounds in mulberry can alter the gut microbiota in ways that influence glucose regulation, fat metabolism, and intestinal health.

A review involving scientists from Wroclaw Medical University found encouraging evidence from laboratory and animal studies, although research in humans remains limited.

Why Mulberry Preparations Differ

The gut microbiota helps digest food, maintain the intestinal environment, and produce substances that can affect the rest of the body. Anna Prescha, PhD, DSc, a professor in the Department of Dietetics and Bromatology at Wroclaw Medical University, says mulberry is especially interesting because it contains polyphenols and polysaccharides that may interact with these microorganisms.

Most research has examined white mulberry (*Morus alba*), but black mulberry (*Morus nigra*), particularly its fruit, has also shown potential. Mulberry leaves contain polyphenols, polysaccharides, and 1-deoxynojirimycin (DNJ), which is known to influence carbohydrate metabolism. Black mulberry fruit supplies abundant anthocyanins and other phenolic compounds, as well as polysaccharides.

The final product depends heavily on how the plant material is handled. Drying, fermentation, and extraction can change both the quantity and balance of its active compounds. Two preparations made from the same leaves or fruit may therefore have different compositions and produce different biological responses.

Gut Bacteria Turn Mulberry Into Metabolites

Studies reviewed by the researchers suggest that preparations made from mulberry leaves and fruit can alter the abundance and activity of certain gut bacteria.



Some experiments reported increases in beneficial microbes and greater production of acetate, propionate, and butyrate.

These short-chain fatty acids are created when gut bacteria ferment dietary material. They help support the intestinal lining and contribute to the chemical communication connecting the gut with metabolism elsewhere in the body. Several studies linked mulberry-related microbial changes with improvements in measures of glucose and lipid metabolism.

The effects, however, varied considerably among preparations. Polysaccharides extracted from black mulberry fruit differed in structure and in how effectively gut microbes used them. Fractions obtained through water extraction and treatment with pectate lyase displayed the greatest prebiotic potential.

Structure Shapes the Microbial Response

Leaf polysaccharides showed the same sensitivity to chemical structure. Features such as molecular weight and monosaccharide composition appeared to influence which bacteria could consume them and which short-chain fatty acids those microbes produced. This helps explain why simply list-

ing the compounds in a product may not be enough to predict its effects.

Some of the strongest results came from mixtures rather than isolated components. In mice fed a high-fat diet, a white mulberry fruit fraction containing both polyphenols and polysaccharides produced more favorable changes in the gut microbiota than either fraction given separately. The combined treatment also improved some indicators of metabolic syndrome and intestinal health.

Researchers then transferred microbiota from mice treated with the combined fraction into other animals. The recipient mice also experienced improvements in certain metabolic disturbances, strengthening the possibility that the altered microbial community helped transmit some of the treatment's effects.

Finding the Right Mulberry Formula

The findings suggest that mulberry's biological activity may emerge from interactions among multiple compounds rather than from one dominant ingredient. Prescha emphasizes that researchers must consider the species, plant part, chemical pro-

portions, and processing method when trying to produce a specific effect. A universal mulberry supplement is therefore less realistic than carefully designed preparations intended for particular purposes.

The review began with the Nutri-Sfera Student Research Group in the Department of Dietetics and Bromatology at Wroclaw Medical University. The topic was proposed by two students who have since graduated: Marta Miszczak from the Dietetics program and Karolina Klosowska-Burylo from the Pharmacy program. Their involvement brought nutritional and pharmaceutical perspectives together, allowing the team to examine mulberry as both a complex plant material and a possible influence on the microbiota and metabolism.

Human Evidence Is Still Missing

Despite the encouraging results, most evidence comes from animal models and in vitro experiments. Human studies directly measuring how mulberry preparations affect the gut microbiota remain scarce. Comparisons are also difficult because relatively few studies provide a detailed chemical analysis of the products they test.

Prescha cautions that researchers cannot yet assume the relationships observed among mulberry, gut microbes, and metabolism will work the same way in people. Changes found in mice or laboratory cultures may not translate into meaningful human health benefits.

Clinical trials will need to test standardized preparations whose chemical composition has been thoroughly documented. These studies could determine which mulberry products alter the human gut microbiota, how large and consistent those changes are, and whether they lead to measurable improvements in metabolic or intestinal health.

Word of the Day

hobnob

verb | *HAHB-nahb*

WHAT IT MEANS

To hobnob is to socialize with others, especially with people of high social status.

A great deal can be learned about the entertainment industry by hobnobbing with folks at film festivals.

HOBNOB IN CONTEXT

“My whole attitude has been—because all I care about is the music—I don’t need to make the scene. I don’t need to hobnob with the executives because I see them all the rest of the year.” —Jem Aswad, quoted in *Variety*, 14 Apr. 2026

DID YOU KNOW?

In William Shakespeare’s *Twelfth Night*, Sir Toby Belch warns Viola that Sir Andrew wants to duel, telling her “‘Hob,

nob’ is his word” and then adding the gloss “give’t or take’t.”

In today’s English, he might have said “take it or leave it.” Sir Toby’s hob, nob is an alteration of hab nab (“hit or miss,” “however things may turn out”), itself likely a shortening of the Middle English phrase habbe or nabbe (“whether I have or don’t have”). After Shakespeare’s day, hob-nob and hob or nob were used adverbially to mean “randomly.”

And to drink hobnob, or hob

or nob, was to take turns with one’s drinking buddies toasting each other’s health. Later, hobnob (as well as hob or nob, hob-anob, etc.) was verbified to mean “to drink socially” and then, dropping the booze, “to spend time with someone in a friendly way.”

Today hobnob is used especially in situations where someone is chatting up someone famous or important, as in “hobnobbing with celebs.”

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SOLUTION OF PREVIOUS PUZZLE

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STARS & PLANETS

■ **ARIES:** Money that you’ve been earning for a long time may finally come your way today, Aries, but don’t be surprised if you have to do a lot of running around in order to get it. Plans for future moneymaking projects could come up, although it’s important to consider everything carefully and not jump in too quickly. This is an excellent time to learn a new money-making skill.

■ **TAURUS:** The special someone in your life may be having some trouble with colleagues. Don’t just comfort him or her, Taurus. It’s unlikely that your sweetie wants sympathy. Solutions are needed. If you don’t have any, just be a good listener. It’s important for you to get out and exercise. If the weather is good, take a walk. If not, attend an online exercise class. You’ll feel better.

■ **GEMINI:** Today you’re likely to be working hard behind the scenes, perhaps preparing a project for others to make public or coaching people for some kind of virtual performance. You’ll expend a lot of energy in the course of completing this chore, yet you’ll probably feel it was all worth it. Don’t expect to go home early, Gemini. You’ll probably go above and beyond the call of duty.

■ **CANCER:** Friends could entice you to join them for a short day trip, perhaps to the country.

This is a great day to go on such an outing if it’s possible, Cancer. You’ve probably been working hard and need to get away for a while. Don’t be surprised if there’s a delay, however. You or one of your friends could be waiting to talk with someone.

■ **LEO:** Emotions could be intense at work today as important projects approach their deadlines, Leo. You may put in more time than usual. Tempers might flare and co-workers clash, so stay calm and keep going. On the positive side, the financial and recognition payoffs for whatever you accomplish today should prove well worth the effort.

■ **VIRGO:** Today you should feel especially sexy and relationships with romantic partners should go well, Virgo. Your passions are intense, the lines of communication are open, and appreciation of one another is running high. There might be talk of taking a long trip together in the future. Plan a cozy evening for two. You’ll want to do a lot of talking - and more!

■ **LIBRA:** Money is probably on your mind now, Libra. A desire for increased financial security could force you to look for work or investments that would pay off big. Opportunities for one or both of these are likely to come through friends, perhaps someone with whom you’ve worked before. You’re likely to accomplish what you want for now, but it’s uncertain whether you’ll continue on this path in the future.

■ **SCORPIO:** Don’t expect to spend a lot of time at home today, Scorpio. You’re more likely to be in the car and away from home. There may be errands and other obligations to fulfill. Try to pace yourself in whatever you do or else you might be exhausted by day’s end. Take the time to stop and enjoy yourself. This will ensure a fun rather than tiring day.

■ **SAGITTARIUS:** Emotional turmoil on the job could stress you out way too much. Headaches or temporary hypertension could plague you if you aren’t careful. Don’t push too hard. Remember to take breaks, Sagittarius, and go for a walk on your lunch hour. Don’t be afraid to put off nonessential tasks. You’ll be all right. Why make a day’s work any more difficult than it needs to be?

■ **CAPRICORN:** This should be a fortunate day for you, Capricorn. Everything you try to do should go fairly smoothly. Relations with others are warm, friendly, and congenial. Any chores or other pending work should be completed quickly and efficiently. If you’ve been planning to start a new project, this is the day to get going. Romance should be intense and passionate now, so make the most of it!

■ **AQUARIUS:** A couple you’ve known for a long time could visit you at your home today, Aquarius. Don’t be surprised if they tell you how wonderful the place looks. Conversation should be lively and entertaining, though you should sidestep any discussion of controversial subjects. Debates on such matters could get rather heated. It might be wise to treat your guests to food rather than alcohol!

■ **PISCES:** Today, Pisces, you might spend a great deal of time in the car running errands in the neighborhood. You’re likely to see people you know who have interesting news. New businesses may open nearby. Doctors, dentists, and other professionals could be more accessible than you expect, making your daily routine more convenient. Some of them might be your neighbors or relatives.

What is **My Zodiac Sign?**

List of Zodiac Signs Based on Birth Dates

Your zodiac sign is determined by your date of birth. You may check the zodiac sign chart and find in which period of zodiac your birth date falls.

♈

Aries

(March 21 - April 19)

♉

Taurus

(April 20 - May 20)

♊

Gemini

(May 21 - June 20)

♋

Cancer

(June 21 - July 22)

♌

Leo

(July 23 - August 22)

♍

Virgo

(August 23 - September 22)

♎

Libra

(September 23 - October 22)

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Scorpio

(October 23 - November 21)

♐

Sagittarius

(November 22 - December 21)

♑

Capricorn

(December 22 - January 19)

♒

Aquarius

(January 20 - February 18)

♓

Pisces

(February 19 - March 20)