A Case Study of Cystic Fibrosis Yields Clues to Its Ayurvedic Pathogenesis and Treatment

A newborn's chart, the first four months of a disease, and what Āyurveda saw that the clinic later confirmed

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SUMMARY

A girl born in Boulder, Colorado in December 2007 was diagnosed with cystic fibrosis in her first month. Her natal chart, read in the Jyotiṣa tradition, places Rahu in the sixth house of sickness under the full aspect of its own lord Saturn from the twelfth, brings Mars, Saturn and Ketu to bear on the fourth house of the lungs, and troubles the Leo region that governs the pancreatic digestion. Read through Āyurveda, the signs of the disease — thick mucus, salty skin, fatty stools, poor weight gain — resolve into a single chain: an overproduction of immature fat tissue (*asthāyi meda*) followed by chronic wasting of the mature tissue (*sthāyi meda kṣaya*), which is a *vāta* condition at its root even though *kapha* dominates the surface. That reading predicted a loss of bone in these patients, which the medical literature already reported; it suggested that treatment should reduce *vāta* rather than feed *kapha*; and, followed week by week through the child's planetary sub-periods, it tracked her weight gain, her loose stools and her first mucus. This edition keeps the 2008 observations as they were made, recomputes the chart (the original figure was lost), and adds what both medicines have learned since.

ABOUT THIS EDITION

The article below was written in April 2008, when the child was four months old, and printed that autumn. For this edition the text has been rewritten for clarity and order; the clinical observations, the dates, the planetary periods and the conclusions of 2008 are kept as they were. The natal chart has been recomputed from the stated birth data (Lahiri ayanāṁśa, Swiss Ephemeris) and drawn afresh,

since the chart image printed in 2008 no longer exists; every placement the 2008 text relies on is reproduced by the recomputation. Sources that were bare web addresses in 2008 — several of them now dead — have been replaced with the underlying papers, and a closing section reports how the medical picture has moved in the eighteen years since. Where the 2008 text needs correcting, the correction is marked as such rather than silently made.

I

The case

I recently had the honor of helping a mother by giving astrological advice for the pregnancy of her third child. I am pleased to say that I predicted, before conception, the gender and the week of birth. But with the arrival of this beautiful child I missed something: a diagnosis of cystic fibrosis.

Now, looking at the girl's chart through the glasses of retrospection and a few tears of grief, it seems hard to miss.

The birth data, given with the mother's permission, are 6 December 2007, 2:55:26 a.m., Boulder, Colorado. Such precision is the result of the mother and two helpers being astrologically interested despite all the distractions of a birth. The child was born in the Rahu–Mercury–Rahu–Rahu daśā, the nested periods of planetary emphasis that Jyotiṣa uses to time a life.

Rahu is in the sixth house of sickness, and that sickness is strengthened by the sixth house's own lord, Saturn, aspecting it directly from the twelfth house of bodily loss and hospitals. Indeed, the mother was given the result of her daughter's sweat test — the diagnosis — on 4 January 2008 at 5:30 p.m. in Boulder, just in time for the girl's Rahu–Mercury–Rahu–*Saturn* period.

I think this child's chart contains particularly useful information for the understanding and management of the disease. Of course, any ideas the astrologer may have are subsumed by the knowledge and practice of the medical professional and are offered here for metaphysical interest.

II

The disease

In 2008 the Cystic Fibrosis Foundation described the disease this way:[1]

> "Cystic fibrosis is an inherited chronic disease that affects the lungs and digestive system of about 30,000 children and adults in the United States (70,000 worldwide). A defective gene and its protein product cause the body to produce unusually thick, sticky mucus that:
>
> - clogs the lungs and leads to life-threatening lung infections; and

- obstructs the pancreas and stops natural enzymes from helping the body break down and absorb food.

In the 1950s, few children with cystic fibrosis lived to attend elementary school. Today, advances in research and medical treatments have further enhanced and extended life for children and adults with CF. Many people with the disease can now expect to live into their 30s, 40s and beyond."

Symptoms: very salty-tasting skin; persistent coughing, at times with phlegm; frequent lung infections; wheezing or shortness of breath; poor growth or weight gain in spite of a good appetite; frequent greasy, bulky stools or difficulty in bowel movements.

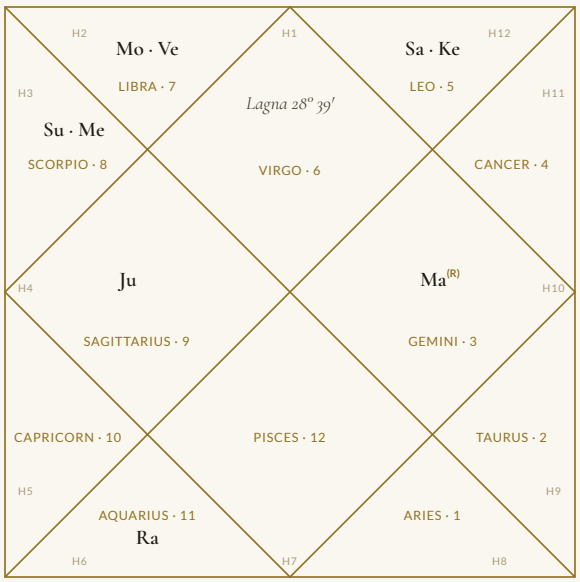
The Āyurveda of the situation is the same. Āyurveda is the traditional medicine of India, which uses astrology and a five-element philosophy to provide care to billions of people to this day. Briefly, the five elements combine into three conditions called *vāta* (air and space), *pitta* (fire and water) and *kapha* (earth and water). These three are the basis for understanding pathology. The Foundation's list of symptoms, read in that language, is a short course in the disease: mucus is *kapha*; salty skin is sweat, and sweat is a tissue by-product; fatty stools are fat escaping the body; poor growth with a good appetite is nourishment that is taken in but never arrives.

MEASURE	AS THE 2008 ARTICLE HAD IT	AS OF THE 2024 REGISTRY AND 2026 SOURCES
People living with CF	about 30,000 in the United States; 70,000 worldwide	close to 40,000 in the United States; an estimated 105,000 diagnosed across 94 countries[2]
Expected survival	"into their 30s, 40s and beyond"	half of those born 2020–2024 are predicted to live to 65 or beyond; possibly a decade or more less for the 7.3% not eligible for any CFTR modulator[3]
Cause	"a defective gene and its protein product"	the CFTR gene (identified 1989); its protein moves chloride *and bicarbonate* across the cell surface[4,5]
Treatment of the cause	none; enzyme supplements and a heavy diet are the measures the article names	CFTR modulators since 2012; the triple combination elexacaftor–tezacaftor–ivacaftor approved October 2019, now the dominant therapy[3]
CF-related diabetes	not discussed	24% of people with CF in 2024[3]

TABLE 1 The disease in 2008 and now. The 2008 column quotes the Cystic Fibrosis Foundation's public description of that year; the right-hand column draws on the Foundation's 2024 Patient Registry highlights and current overview pages.

III

The chart



BIRTH
6 Dec 2007, 2:55:26 a.m. MST
Boulder, Colorado
40° 01′ N · 105° 16′ W

ZODIAC
Sidereal, Lahiri
ayanāṁśa 23° 58′

DAŚĀ AT BIRTH
Rahu–Mercury–
Rahu–Rahu
(Moon in Svātī)

HOUSES NAMED
4th · lungs, chest
6th · sickness
8th · elimination
12th · loss, hospitals
Leo · pancreatic region
Gemini · hands, prāṇa

FIGURE 1 The natal chart, recomputed for this edition in the North Indian style (the first house is the top diamond; signs run counter-clockwise). Virgo rises at 28° 39′. Rahu sits in the sixth house (Aquarius) under the seventh-house aspect of its lord Saturn, who is in the twelfth (Leo) beside Ketu. Jupiter stands in his own sign Sagittarius in the fourth, the house of the lungs. Mars is retrograde in Gemini, the sign of an enemy, in the tenth. The Sun, lord of Leo, is in the third with Mercury; the Moon and Venus are together in the second.

BODY	SIGN AND DEGREE	NAKṢATRA · PADA	HOUSE	NOTE
Ascendant	Virgo 28° 39′	Citrā · 2	1	1° 21′ from the Libra boundary; see the note below
Sun	Scorpio 19° 55′	Jyeṣṭhā · 1	3	lord of Leo, the twelfth
Moon	Libra 13° 37′	Svātī · 3	2	Svātī gives the Rahu daśā; with Venus
Mercury	Scorpio 13° 42′	Anurādhā · 4	3	lagna lord, with the Sun
Venus	Libra 7° 01′	Svātī · 1	2	in own sign, with the Moon
Mars	Gemini 15° 20′ (R)	Ārdrā · 3	10	retrograde, in an enemy's sign; lord of the 8th
Jupiter	Sagittarius 3° 12′	Mūla · 1	4	in own sign; lord of the 4th and 7th
Saturn	Leo 14° 26′	Pūrva Phalgunī · 1	12	lord of the 6th, aspecting it; with Ketu
Rahu	Aquarius 7° 43′	Śatabhiṣā · 1	6	in Saturn's sign
Ketu	Leo 7° 43′	Maghā · 3	12	with Saturn

TABLE 2 Sidereal positions at birth (Swiss Ephemeris, Lahiri ayanāṁśa 23° 58′; Rahu and Ketu are the mean node). Every placement the 2008 article describes — Rahu in the sixth under Saturn's aspect, Saturn and Ketu in Leo in the twelfth, Jupiter at home in the fourth, Mars retrograde in Gemini, the Sun in the third, the Moon with Venus — is reproduced. The ascendant lies close to the end of Virgo: a birth about seven minutes later would have moved it into Libra and changed every house, which is one reason the recorded second matters.

IV

Reading the chart: sickness, loss and the lungs

The pancreas is represented by Jupiter in any chart, and Leo, the natural fifth house, tells us about the pancreatic digestive region. Here Leo falls in the twelfth house, holds Saturn and Ketu, and is ruled by a planet (the Sun) sitting in the third: it is obviously troubled.

Some might say that Jupiter is well situated, in his own constellation in the fourth house, where we would look for the condition of the lungs. But if you follow all the aspects you will see that the fourth house of the lungs is afflicted by every one of the malefics. A retrograde Mars in an enemy's sign aspects it directly from the tenth, promoting infection. The difficult bodily planets, Saturn with Ketu, reach it from the twelfth by the 5/9 aspect, which for Saturn is a partial one — the fourth is the fifth house from Leo. And a further cause may be at work: too much mucus being produced exactly *because* Jupiter is in his own sign, with nothing to restrain his generosity. Hence we can expect trouble.

V

The Āyurvedic pathogenesis: *kapha* at the surface, *vāta* at the root

Let us look at the principal components of cystic fibrosis. Mucus is *kapha*, and it is expected with Jupiter in the lung region. Yet the child has trouble gaining weight — unexpected if *kapha* were generally dominant. In Āyurveda salty skin is sweat, and sweat is the *dhātu mala*, the by-product, of the making of fat tissue (*meda*), which Jupiter rules — Caraka lists it plainly: "the waste of *medas* is sweat" [citation added 2026].[6] Note also the abnormal fatty stools, which are fat leaving the body unused.

All the Āyurvedic roads here lead to the same place: an overproduction of *asthāyi meda* — roughly, the immature beginning of the fat stage of tissue nutrition — followed by *sthāyi meda kṣaya*, a chronic situation in which almost all the nutrition that should mature into fat tissue is wasted instead. The surface of the disease is *kapha*: mucus, blockage, the heavy and the sticky. Its root is a wasting, and wasting is *vāta*. Hence the need, in the clinic, for enzyme supplement therapy to moderate the digestion of fats and the higher stages of tissue nutrition that depend on it. As a patient-education source of the time put it, pancreatic enzyme supplements "replace natural enzymes so that fat and proteins can be absorbed properly, which improves nutrition and reduces fatty stools."[7]

The pancreatic ducts, blocked so that the natural enzymes cannot be released, suggest *kapha* obstructing *pitta* in the digestive system. And indeed a strong Jupiter (*kapha*) directly aspects a weak, retrograde Mars (*pitta*), and reaches the troubled Leonine digestive region as well. Considering that

vāta is also bearing on Mars, I would speculate that *vāta* is affecting the enzymes too. Such tridoṣic complexity is often seen in diseases of this difficulty.

A NOTE ON THE ASPECTS, 2026

The 2008 text said that Saturn aspects Mars, and read the weakening of the *prāṇa* of the hands as the result of "Mars aspected by Saturn" in Gemini. By Parāśara's rules Saturn in Leo throws his special aspects on Libra (3rd), Aquarius (7th) and Taurus (10th), none of which holds Mars. What *does* fall on Mars in Gemini is Rahu's fifth-house aspect from Aquarius — and Rahu is as fully *vāta* in nature as Saturn, and is the daśā lord besides. Saturn and Mars do stand sixty degrees apart (Saturn 14° Leo, Mars 15° Gemini), the 3/11 relation that the Tājika system counts as an aspect; the 2008 text does not say which scheme it had in mind. The conclusion — that *vāta* bears on the *pitta* of the enzymes — stands either way; the carrier was misnamed, and the paragraph above now says "*vāta*" where the original said "Saturn."

What is more, a weakening of the *prāṇa* — very roughly, the electricity — of the hands is to be expected, since the afflicted Mars sits in Gemini, the sign of the arms and hands. And in fact "peripheral nerve dysfunction is common in patients with cystic fibrosis," as an Irish study of adult patients had already reported in 1995.[8]

VI

Treatment: against *vāta* first

The astrologer's tools are also of use in *cikitsā*, treatment. *Meda kṣaya* suggests a fundamentally *vāta* situation. A primary *vāta*-remediating herb is *harītakī* (*Terminalia chebula*), praised at length by Caraka and Vāgbhaṭa [citation added 2026],[9] and — as the 2008 article reported — *harītakī* was the first herb studied for the cystic fibrosis patient with the stringent tools of RNA microarray analysis.[10]

Vāta-balancing measures in *pañcakarma*, diet, yoga and the other Āyurvedic therapies may be useful to the CF client, under a medical professional's care. This is in subtle but important contrast to the Western model, which aims primarily at increased body weight through a heavy diet — a pro-*kapha* therapy, if you will, although *kapha* is already over-present in the mucus and the blocked pancreatic ducts — together with enzyme (*pitta*) therapy. *Vāta* reduction should result in that much-needed weight gain, and might improve access to the active enzymes. The former is direct Āyurvedic *cikitsā*. The latter deserves more explanation, which the previous section began and which the further study proposed at the end of this article would test.

VII

The clinical micro-environment

What is stunning is that an astrologer can also have insight into the clinical micro-environment of an illness — the week-to-week weather of it. The child's first four months were lived inside the Rahu–Mercury antardaśā, and within it the Rahu pratyantardaśā, whose *sūkṣma* (subtle) sub-periods are each a week to three weeks long. Those weeks line up with the clinic.

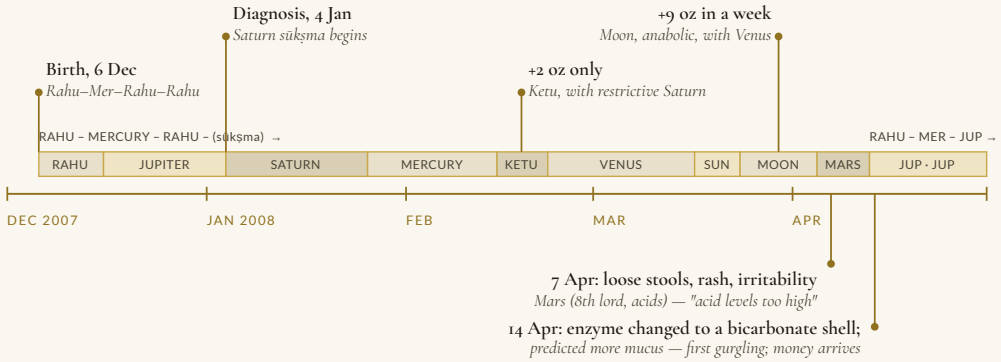


FIGURE 2 The first twenty-one weeks, with the sub-periods under the Rahu–Mercury–Rahu pratyantardaśā and the clinical events the 2008 article recorded against them. Period boundaries are interpolated from the Viṁśottarī proportions (Rahu 18 : Jupiter 16 : Saturn 19 : Mercury 17 : Ketu 7 : Venus 20 : Sun 6 : Moon 10 : Mars 7) anchored to the dates the article gives — 4 January, 7 April, 14 April; a recomputation for this edition with the Lahiri ayanāṁśa places the same boundaries within a few days of these.

On 7 April 2008 the child had loose stools, irritability and diaper rash. She had just entered Rahu–Mercury–Rahu–*Mars*. Mars owns her eighth house of physical elimination, and the medical professionals considered her acid levels to be too high. Mars rules acids in Āyurveda. Too much Mars in Āyurveda and too much acid in Western medicine give the same result in this chart: *pitta*, and loose oily stools. So the signposts of astrology and the findings of Western medicine converged. Moreover the diaper rash and the irritability, which have no particular explanation in the Western account, are also the results of high *pitta*.

This is but one example. In my extended observations the similarities between the two systems for this disease only continued, and had yet to diverge. On 14 April 2008 the mother successfully changed the enzyme the child was taking to a bicarbonate-shell type — more *kapha* — just in time for the child's Rahu–Mercury–*Jupiter*–*Jupiter* period, which would suggest good fortune but also yet more *asthāyi kapha* in her system. (The mother was not aware of the daśā changes when she made her decisions.) I predicted an unfortunate corollary of more mucus for the child in the two weeks of this subtle period, and indeed the child sadly began the first gurgling sounds of anomalous mucus accretion. However, substantial money to help with medical expenses also came to the child at this time.

Just to drive home that the astrological markers exist: earlier, during Rahu–Mercury–Rahu–*Moon*, the Moon's anabolic nature, in conjunction with Venus, helped the child gain a dramatic amount of weight — nine ounces in the week of that *sūkṣma* period. By contrast, in Rahu–Mercury–Rahu–*Ketu*, with Ketu conjunct restrictive Saturn, she gained only two ounces.

VIII

A prediction: the bones

An important consequence of the Āyurvedic model is a prediction of decreased bone mass or density in these patients. Bone (*asthi*) is built after fat in the sequence of the tissues, and in *meda kṣaya* the nutrients meant for bone are being washed away — in the fatty stool, and in the salt of the sweat. Salt is symbolised by Saturn, who rules the bones, and salt is a significant component of bone: something like two-fifths of the body's sodium is held in the skeleton [corrected from the 27 percent given in 2008].[11] [Added in 2026:] Vāgbhaṭa makes bone the very seat of *vāta*, and names bone and *vāta* as the one pair that do not rise and fall together.[12]

To see whether this prediction held, I researched the web in 2008 and found it already there: "low bone mineral density is a common complication of cystic fibrosis," and "CF patients have an unusual and complex pattern of cellular changes within bone."[13] There was then no known reason in Western medicine for bone loss in the CF patient, yet it follows directly from basic Āyurveda. [Section IX reports what has been learned since.] That bone density is lost also supports the promise of the primarily anti-*vāta* therapy described above.

IX

Since 2008: where the two systems have moved

The child in this study was four months old at the time of the article's submission; she would be eighteen now. The medicine she was born into has changed a great deal in these eighteen years, and several of the 2008 observations can be set against what is now known.

The cause can now be treated

CFTR modulators — small molecules that help the defective protein fold and open — reached patients in 2012, and the triple combination elexacaftor–tezacaftor–ivacaftor was approved in October 2019. It now dominates therapy, and only 7.3% of people with CF were ineligible for any modulator in 2024. Half of the children born between 2020 and 2024 are predicted to live to 65 or beyond.[3] The 2008 text did not attempt to foresee any of this; its daśā reading timed the weather of the disease, not the climate of the century.

Pitta blocked by kapha: the bicarbonate story

The 2008 reading of the blocked pancreatic ducts as "*kapha* blocking *pitta*," and the clinical note of "acid levels too high," have gained a mechanism. The CFTR protein moves not only chloride but bicarbonate, and the pancreatic duct depends on it to turn the acinar cells' salty fluid into an alkaline juice of pH 8 or more. Without it the duct fluid is scant and acid, mucins fail to unfold and the ducts plug — Quinton's "mucoviscidosis" of 2008, which placed impaired bicarbonate at the centre of the disease[4] — and the intestine receives too little alkali to neutralise the stomach's acid, which inactivates the very lipase that enzyme supplements supply.[5] A bicarbonate-buffered enzyme, the kind the mother switched to in April 2008, supplies that missing alkali along with the enzyme. In patients on ivacaftor the duodenal pH rises markedly.[5] In Āyurvedic terms: an acid (*pitta*) excess at the site, produced by a failure of the alkaline, unctuous, *kapha*-like secretion that should carry the enzymes — a *vāta* dryness of the duct that lets *pitta* burn and *kapha* clot. The tridoṣic reading of Section V is consistent with the biochemistry as it now stands.

The hands, and the nerves

The "*prāṇa* of the hands" expected from Mars in Gemini was matched in 2008 to the Irish report of peripheral nerve dysfunction in adult patients.[8] That finding was long thought secondary — malnutrition, vitamin E loss, aminoglycoside antibiotics. In 2013 a prevalence study in children with CF again found peripheral neuropathy,[14] and in the same year CFTR-deficient pigs were shown to have peripheral nervous system defects *at birth*, before any malnutrition or infection, with the loss of CFTR acting directly in the Schwann cells that sheathe the nerves.[15] The nerve disorder is, at least in part, primary to the disease — as a natal placement would suggest.

The bones

The 2008 prediction of bone loss is now a named complication, "CF-related bone disease," with low bone mass reported in roughly 20–35% of CF cohorts and rising with age; it predisposes to low-impact fractures and in some centres is a bar to lung transplantation.[16] The mechanisms proposed since are the ones the Āyurvedic chain requires: malabsorption of the fat-soluble vitamins (D and K) from pancreatic insufficiency; malnutrition itself; the inflammatory cytokines of chronic lung infection, which drive bone resorption; and, most tellingly, CFTR expressed in the bone-forming cells themselves, so that its loss hampers osteoblast differentiation and tilts the RANKL/OPG balance toward breakdown. The histology of 2000 — reduced mineral apposition, fewer osteoblasts, more osteoclasts[13] — is bone that is not being built from a fat stage that is not being completed: *asthi* failing downstream of *meda*, with *vāta* in the seat Vāgbhaṭa gave it. Early reports suggest the modulators improve bone microarchitecture.[16]

Harītakī and the lung's chief enemy

The 2008 web page reporting a microarray study of *harītakī* in CF is no longer reachable and the underlying study could not be located for this edition.[10] What has appeared since is more specific: ellagic-acid derivatives from *Terminalia chebula* fruit down-regulate the quorum-sensing genes of *Pseudomonas aeruginosa*, the characteristic pathogen of the CF lung (the 2024 registry reports a median age of five years at first *Pseudomonas aeruginosa* infection[3]), reducing its biofilm and virulence factors and improving its sensitivity to the CF antibiotic tobramycin.[17] The herb has not been tested in CF patients; the reason to name it here is that the first herb Āyurveda reaches for against *vāta* turns out to have a documented action against the first infection the CF lung must face.

What the study still needs

One chart, however well it fits, is one chart. The 2008 article asked for more cystic fibrosis charts in order to see whether its observations could be generalised — in particular whether the sixth-house Rahu under Saturn's aspect, the afflicted fourth, and the troubled Leo region recur — and that call stands. Any reader with a chart to offer may write to the address below.

X

Closing

I would encourage the family to find a physician and an Āyurvedic treatment specialist who can work together and consider the anti-*vāta* regimen proposed above. In summary, Āyurveda is quite parallel to, and at times overarching of, Western medicine in the analysis and treatment of this disease, and the chart and the clinical results together articulate the benefits of Āyurveda.

We must also remember that the chart we began with is that of a beautiful child with real experiences and an amazing future ahead of her — a prediction based both on her chart and on her family. It is with sincere gratitude that I thank her and her mother for allowing me to share part of their story.

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This article is offered for its interest in the history and philosophy of medicine. It is not medical advice. Cystic fibrosis is managed by a specialist care team, and nothing here should alter a treatment plan without that team's involvement.

Notes and references

1. Cystic Fibrosis Foundation, "About Cystic Fibrosis," as quoted in the 2008 article (links then last accessed 21 April 2008). The Foundation's current text is at cff.org/intro-cf/about-cystic-fibrosis.
2. Cystic Fibrosis Foundation, "About Cystic Fibrosis" (accessed November 2026): "close to 40,000 children and adults living with cystic fibrosis in the United States"; "an estimated 105,000 people have been diagnosed with CF across 94 countries." https://www.cff.org/intro-cf/about-cystic-fibrosis
3. Cystic Fibrosis Foundation, *2024 Patient Registry Highlights* (accessed November 2026): median predicted survival of 65 years or beyond for those born 2020–2024; 7.3% ineligible for any CFTR modulator in 2024; CF-related diabetes in 24%; median age at first *Pseudomonas aeruginosa* infection 5 years. https://www.cff.org/medical-professionals/2024-patient-registry-highlights
4. Quinton PM. Cystic fibrosis: impaired bicarbonate secretion and mucoviscidosis. *Lancet* 2008;372(9636):415–417. Riordan JR et al. Identification of the cystic fibrosis gene: cloning and characterization of complementary DNA. *Science* 1989;245:1066–1073.
5. Angyal D, Bijvelds MJC, Bruno MJ, Peppelenbosch MP, de Jonge HR. Bicarbonate transport in cystic fibrosis and pancreatitis. *Cells* 2022;11(1):54 — the ductal bicarbonate mechanism, the loss of fluid and alkali in CF, mucin solubilisation, impaired neutralisation of gastric acid, and the rise in duodenal pH on ivacaftor. https://doi.org/10.3390/cells11010054
6. Caraka Saṁhitā, Cikitsāsthāna 15.18: *kiṭṭam annasya viṇmūtraṁ, rasasya tu kapho 'sṛjaḥ | pittaṁ, māṁsasya khamalā, malaḥ svedas tu medasaḥ ‖* — "the waste of food is feces and urine; of *rasa*, *kapha*; of blood, *pitta*; of flesh, the wastes of the body's openings; and the waste of *medas* is sweat." The order of the seven tissues, *rasa* → *rakta* → *māṁsa* → *medas* → *asthi* → *majjā* → *śukra*, is given in the same chapter.
7. Healthwise, "Enzyme replacement therapy for cystic fibrosis," patient-education text hosted at health.yahoo.com in 2008 (no longer online); quoted as in the 2008 article.
8. O'Riordan JI et al. Peripheral nerve dysfunction in adult patients with cystic fibrosis. *Irish Journal of Medical Science* 1995 (PubMed 7672935) — the source of the 2008 quotation.
9. *Harītakī* opens Caraka's chapter on rejuvenation (Cikitsāsthāna 1.1, Abhayāmalakīya Rasāyana) and is praised in Vāgbhaṭa's Sūtrasthāna 6 among the fruits; the classical account gives it five tastes (all but salt), hot potency and a sweet post-digestive effect, and calls it a pacifier of all three *doṣas*; its special use against *vāta* is the 2008 article's position.
10. The 2008 article cited ayurhelp.com/plants/Cystic_fibrosis_Tc.htm for a report that *harītakī* had been studied by RNA microarray in cystic fibrosis. The page is gone and the primary study could not be identified in November 2026; the claim is kept here as a 2008 report, not as a verified result.
11. Edelman IS, Leibman J. Anatomy of body water and electrolytes. *American Journal of Medicine* 1959;27:256–277 — the skeleton holds roughly 40% of total body sodium, about a third of it exchangeable. The 2008 article gave the figure as 27%; the larger share is the one the physiology texts carry.
12. Vāgbhaṭa, *Aṣṭāṅgahṛdayam*, Sūtrasthāna 11.26–27: *tatrāsthani sthito vāyuḥ, pittaṁ tu svedaraktayoḥ | śleṣmā śeṣeṣu, tenaiṣām āśrayāśrayiṇāṁ mithaḥ ‖ yad ekasya tad anyasya vardhana-kṣapaṇauṣadham | asthimārutayor naivaṁ, prāyo vṛddhir hi tarpaṇāt ‖* — "*vāta* dwells in the bones, *pitta* in sweat and blood, *kapha* in the rest, so that each is the abode of the other; what increases or reduces the one does the same to the other — except for bone and *vāta*, since increase comes mostly from nourishment."

13. Haworth CS, Webb AK, Egan JJ, Hasleton PS, Bishop PW, Freemont TJ. Bone histomorphometry in adult patients with cystic fibrosis. *Chest* 2000;118(2):434–439 — the source of both 2008 quotations.

14. Chakrabarty B et al. Peripheral neuropathy in cystic fibrosis: a prevalence study. *Journal of Cystic Fibrosis* 2013 (PubMed 23391476).

15. Reznikov LR, Dong Q, Chen J-H, Moninger TO, Park JM, Zhang Y, Du J, Hildebrand MS, Smith RJH, Randak CO, Stoltz DA, Welsh MJ. CFTR-deficient pigs display peripheral nervous system defects at birth. *Proceedings of the National Academy of Sciences* 2013;110(8):3083–3088. https://doi.org/10.1073/pnas.1222729110

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Chart computed with the Swiss Ephemeris (Lahiri ayanāṁśa 23° 58′ 04″ on the date; mean lunar node). Positions are given to the arc-minute. The daśā is Viṁśottarī from the Moon in Svātī, 13° 37′ Libra.