Tannin in Tea: Astringency You Can Control

From the teas.co.uk wiki

> **Tannin in tea, in summary:** "Tannin" means the astringent polyphenols that give tea its dry, grippy mouthfeel, not bitterness and not caffeine. Some teas have more, brewing controls it, milk softens it, and used well it is a feature, not a fault.

"Tannin" is one of the most used and least understood words in tea. It is blamed for bitterness, credited for briskness, and tangled up with health claims that are mostly half-remembered. Here is what tannin in tea actually is, what it does in the cup, and how to control it.

Last reviewed by the teas.co.uk team in May 2026.

What tannin actually is

In everyday tea language, "tannins" refers to a group of polyphenols (in tea, largely the catechins and their oxidised relatives) that are astringent: they create that dry, mouth-puckering, slightly grippy sensation, the same family of compounds that makes red wine and unripe fruit feel drying. It is not the same thing as caffeine, which is a separate stimulant compound. The chemistry is simple enough in outline: in green tea these polyphenols are largely catechins, fresh and briskly astringent, while in black tea, oxidation converts many of them into larger molecules, the theaflavins and thearubigins, which give black tea its deep colour, body and a rounder, fuller astringency. This is why a green and a black from the very same bush feel so different in the mouth, not different plants, but a different polyphenol profile created by processing.

Astringency is not bitterness

Astringency is a tactile sensation, not strictly a taste, which is why people confuse it with bitterness. Bitterness is a taste, detected on the tongue; astringency is a feeling, a drying tightness across the whole mouth. A tea can be bitter without being very astringent and vice versa, though strong black tea brewed too long usually delivers both. Learning to notice "is this harsh because it is bitter, or because it is drying?" turns a vague "too strong" into something you can adjust. And used well, astringency is desirable, not a fault: it is what gives a breakfast tea its brisk, refreshing "cut" through milk and a fried breakfast, the way a tannic red wine cuts rich food, and it is why a clean astringent tea feels thirst-quenching where a flat one feels cloying. The aim is not to eliminate it but to land it where you want it, present and refreshing in a robust black, barely there in a delicate white.

Why some teas are more astringent

The level depends on the leaf and the brewing. Brisk black teas such as a strong Assam or a low-grown Ceylon are naturally fuller in these compounds, which is part of what makes them stand up to milk. Delicate Darjeeling, most greens and whites are gentler if treated correctly, and the same plant chemistry the origins guide describes explains the differences. Cheap, broken or dusty leaf, and the contents of many teabags, extract their tannin fast and all at once, which is why an over-steeped bag turns harsh so quickly.

Tea	Typical astringency	Keep it in check by
Strong black (Assam, low Ceylon)	High	Time control; milk
Everyday teabag	High, fast	Do not over-steep; remove the bag
Green tea	Moderate	Cooler water, short steep
White / aged white	Low	Gentle brewing
Cold brew (any)	Very low	Cold water barely extracts it

How brewing controls it

A few levers do almost all the work. Time: the longer the leaf sits, the more astringent compounds come out, and they come out later than the pleasant ones, which is why a short steep tastes rounder. Temperature: hotter water extracts them faster and harder, which is why greens and whites want water well off the boil. Leaf size: fine, broken leaf dumps everything at once, while whole leaf releases more gradually and forgivingly. Two quieter variables also matter: harder water tends to mute and round astringency slightly while softer water lets it read sharper, one reason the same tea tastes different in different parts of the country, and the leaf-to-water ratio interacts with time, since a lot of leaf brewed briefly gives strength without the harshness of a little leaf stewed long. Strength and astringency are not the same dial, and good brewing separates them.

Milk, lemon and the cold-brew trick

A few practical moves change the experience directly. Milk proteins bind some of these compounds, which is exactly why a brisk Assam feels smooth and rounded with milk and grippy without it. Lemon does the opposite, sharpening rather than softening, so it suits brighter, lower-tannin teas. And cold water barely extracts these compounds at all, which is the whole reason a cold brew is so smooth and almost impossible to make harsh, and why re-steeping good whole leaf, as the re-steeping page covers, gives a gentler second cup.

Quick fixes when a cup is too harsh

When a cup comes out drying and grippy, the remedies are simple and stackable. Shorten the steep next time and taste earlier; drop the water temperature for greens and whites well off the boil; use more leaf for less time rather than less leaf stewed long; add a splash of milk to a robust black, which binds some of the astringency; or add a little hot water to the cup you already have to dilute it. If a tea is reliably harsh however carefully you brew it, the leaf itself is the problem: switch to a better whole-leaf grade, or brew it as a cold brew, which barely extracts these compounds at all.

The health angle, kept simple

Tea polyphenols are studied with genuine interest, but two everyday points are worth stating clearly and without overclaiming. First, the astringent compounds in tea can bind iron in the gut and modestly reduce absorption of non-haem (plant) iron, so anyone managing low iron may prefer to drink strong tea between meals rather than alongside an iron-rich plant meal. It is a small timing habit, not a reason to avoid tea. Second, broader "antioxidant" health claims are far less settled than marketing implies, and this site treats them with the caution set out on the tea and your health page. This is general information, not medical advice; the rest is brewing and food-pairing common sense.

To feel astringency move under your own hand, compare a brisk Assam, a gentle white tea and a smooth green, ideally as loose leaf so you can control the steep, in the full tea shop, where UK delivery is free over £35.

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