



Frequently Asked Question

Can you use alternative milks for milk frothing?



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Milk frothing is an essential skill for crafting café-style drinks at home, from velvety cappuccinos to indulgent hot chocolates. While traditional full cream dairy milk has long been the gold standard for frothing, a rising interest in plant-based diets and lactose-free lifestyles has sparked a surge in milk alternatives. But how do these non-dairy options compare when it comes to texture, taste, and performance in your frother?

In this in-depth guide, we explore how full cream milk stacks up against popular plant-based milks when it comes to frothing, helping you understand what to expect in your cup, whether you're using a manual frother or an automatic milk frother.

Why Milk Froths in the First Place

Before diving into comparisons, it's useful to understand the science of milk frothing. Frothing involves injecting air into milk while heating it. This creates tiny bubbles, or microfoam, that give frothed milk its silky, airy texture.

The quality and stability of this foam depend on two key milk components:

- Proteins, particularly casein and whey, which stabilise bubbles and maintain foam structure.
- Fats, which add richness and mouthfeel, but too much can weigh foam down.

Different milk types have varying levels of protein and fat, and therefore froth very differently.

Full Cream (Whole) Dairy Milk

Composition:

- Protein: ~3.3%
- Fat: ~3.5-4%
- Carbohydrates (Lactose): ~4.8%

Frothing Characteristics:

Full cream milk is the benchmark for milk frothing. Its ideal balance of fat and protein allows it to produce rich, creamy foam with excellent stability and texture. The fat contributes to the luxurious mouthfeel, while the proteins build a strong microfoam structure that's ideal for latte art.

- Best for: Cappuccinos, lattes, macchiatos, flat whites.
- Texture: Dense, velvety, stable foam.
- Taste: Creamy, sweet, with balanced dairy notes.

Pros:

- Consistent frothing performance.
- Thick, glossy microfoam.
- Great for beginners and professionals alike.

Cons:

- Not suitable for lactose-intolerant individuals or those avoiding animal products.

Oat Milk

Composition:

- Protein: ~1-1.5%
- Fat: ~1.5-3% (varies by brand)
- Carbohydrates (Sugars): ~4-7%

Frothing Characteristics:

Oat milk has rapidly become the most popular dairy alternative for frothing. It offers a naturally sweet, neutral flavour and a consistency that closely mimics dairy. Barista versions (formulated with added fats and stabilisers) froth particularly well, creating smooth microfoam that's ideal for lattes and art.

- Best for: Lattes, flat whites, cortados.
- Texture: Smooth, silky, slightly thinner than dairy.
- Taste: Mildly sweet, cereal-like.

Pros:

- Excellent frothing with barista versions.
- No overpowering flavour; complements coffee.
- Great for those avoiding dairy or soy.

Cons:

- Regular oat milk (non-barista) may not froth well.
- Can curdle in overly acidic espresso if not formulated properly.

Almond Milk

Composition:

- Protein: ~0.5-1%
- Fat: ~1-3%
- Carbohydrates (Sugars): ~0-3%

Frothing Characteristics:

Almond milk can froth, but it's highly brand-dependent. The low protein content makes it prone to thin or unstable foam. Barista formulations are more reliable, but you may still find separation or a dry, bubbly texture.

- Best for: Iced drinks, where froth is less critical.
- Texture: Light foam, sometimes unstable.
- Taste: Nutty, slightly bitter or earthy.

Pros:

- Low in calories.
- Distinct almond flavour for creative drinks.

Cons:

- Foams can collapse quickly.
- More challenging for latte art or thick microfoam.

Soy Milk

Composition:

- Protein: ~3-3.5%
- Fat: ~1.5-2%
- Carbohydrates (Sugars): ~2-5%

Frothing Characteristics:

Soy milk is the closest non-dairy competitor to full cream milk in terms of protein content. This makes it one of the most reliable alternatives for frothing, particularly in barista-specific blends. It produces a dense foam and holds up well for latte art.

- Best for: Cappuccinos, lattes, and latte art practice.
- Texture: Creamy, firm foam.
- Taste: Earthy or beany, but varies by brand.

Pros:

- Strong froth structure.
- High protein mimics dairy-like texture.

Cons:

- May curdle in acidic espresso or high heat.
- Flavour can dominate delicate coffee blends.

Coconut Milk

Composition:

- Protein: ~0.5-1%
- Fat: ~1.5-4% (depends on concentration)
- Carbohydrates (Sugars): ~1-2%

Frothing Characteristics:

Coconut milk tends to separate easily and often struggles to hold foam. Some barista blends improve stability, but the result is usually light and airy rather than dense. The strong coconut flavour also significantly alters the drink profile.

- Best for: Iced lattes, tropical-inspired drinks.
- Texture: Thin, fluffy, can be watery.
- Taste: Pronounced coconut flavour.

Pros:

- Unique tropical taste.
- Works well cold.

Cons:

- Poor foam stability.
- Strong flavour may clash with some coffees.

Rice Milk, Cashew Milk, and Others

These alternatives generally have low protein and fat content, making them the least effective for frothing. While some fortified or barista-specific versions exist, results are inconsistent.

- Rice Milk: Very thin, watery foam; sweet but lacks structure.
- Cashew Milk: Creamy mouthfeel, but poor frothing performance without additives.

Barista Blends: The Game Changer

Almost all milk alternatives now come in “barista” versions, which are specially formulated to improve frothing performance. These typically include:

- Added plant protein (pea, oat, soy)
- Vegetable oils (sunflower or rapeseed) to mimic dairy fat
- Emulsifiers and stabilisers (e.g., lecithin or gellan gum)

Barista versions can dramatically improve foam texture, making plant-based milks a viable option for home and professional use.

Key Considerations When Choosing Milk for Frothing

- 1. Protein Content: More protein generally means better foam stability.
- 2. Fat Content: Adds creaminess but can reduce froth volume.
- 3. Freshness: Fresher milk (including plant-based) froths better.
- 4. Temperature Control: Overheating breaks down proteins—keep milk between 55-65°C (130-150°F).
- 5. Acidity Sensitivity: Some non-dairy milks curdle in acidic espresso or extreme heat.

Final Verdict

MILK TYPE	FOAM QUALITY	TEXTURE	BEST USE	NOTES
Full Cream	5/5	Dense, velvety	All coffee drinks	Gold standard for frothing
Oat (Barista)	4/5	Silky, smooth	Lattes, flat whites	Best plant-based option overall
Soy (Barista)	4/5	Creamy, firm	Cappuccinos, latte art	Great dairy alternative
Almond	2/5	Light, airy	Iced drinks	Best with barista versions
Coconut	2/5	Fluffy, light	Iced/tropical drinks	Overpowers coffee flavour
Rice/Cashew	1/5	Thin, watery	Niche uses	Inconsistent results

Conclusion

When it comes to milk frothing, full cream dairy milk remains unmatched in overall performance, flavour, and texture. However, thanks to improved formulations and rising demand, plant-based barista blends, especially oat and soy, now offer serious competition. Your choice ultimately depends on dietary needs, flavour preferences, and what kind of drinks you’re making. No matter which milk you choose, experimenting with different brands and frothing techniques can help you find your perfect cup.

The information provided here is for general information use only. Ensure to assess your specific situation and apply what is correct for your given circumstances.