Yeh A1, A2 kya hai?

With A2 milk being called a healthier choice and easier to digest than regular A1, experts discuss the difference and how much it matters

PHORUM DALAL

THOSE of us who grew up in 1980s and 1990s, will remember drinking at least two glasses of milk every day of our childhood. We were told it is good for the bones, and can make us taller and stronger. Sometimes, it didn’t agree with the gut. This was the only time mothers exempted young adult children from breaking the compulsory milk regime.

Adults are inherently lactose intolerant, says food historian and archaeologist Kurush Dalal. “But, Indians became a dominant gene pool who could digest it. Over time, we changed the biochemical property of milk by turning it into chaos, ghee and other products like chaas, ghee and other products like chaas, ghee and other products like chaas, ghee and other products like chaas, ghee and other products like chaas, ghee and other products like chaas, ghee and other products like chaas.”

In the past few years, our relationship with milk has been influenced by lifestyle, quality of milk, vegetarianism and even environmental and moral choices.

With gut earning the status of second brain and as the epicentre of well-being, A2 milk has been promoted as a gut-friendly choice of milk. This was amplified by numerous research papers that pitted A2 against A1—both protein elements responsible for lactose intolerance in the body. A2 is a type of milk protein. Around 39 per cent of protein in milk is Beta casein. A1 and A2 are genetic variants of this beta casein.

A1 milk, which is the most commonly used milk and is abundantly available, is obtained from cows of Western origin such as Bos Taurus, Holstein Friesian or Jerseys and is known to yield a large quantity of milk. The A2 milk is obtained by the cows of Indian origin like Gir and Sahiwal. Although both are sourced from cows, the two milks vary in terms of the chemical composition.

“In the Indian context, all milk produced by buffaloes, native cows, goats, sheep, and camels is A2. Even milk from the exotic crossbreeds of Holstein Friesian and Jerseys have a large portion of A2,” says Kuldeep Sharma, dairy expert, Suruchi Consultants in Noida. “Experts claim that more than 90 per cent of milk in India is A2 whereas 9 per cent is A1 and 1 per cent is A3.”

The cows at Neeraj Mittal’s farm in Lonavala are housed according to the life stage they are in—whether they are milking or non-milking. The calves are kept close to them. “We like to keep them in luxury and comfort. We even have a massaging unit,” he says.

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In certain cases, there may be lactose intolerance so they may avoid it or take lactose-free milks,” Sharma points out.

“A2 milk is the biggest con in India,” Dalal says without mincing words. “There is no such thing as A1 or A2 in milk. After that one tall claim, what followed was a bunch of papers debunking this theory,” Dalal explains.

Proponents assert that A2 has several health benefits and is easier for people with milk intolerance to digest. “A2 milk comes closest to mother’s milk,” says Neeraj Mittal of Pune’s Mittal Happy Cows Dairy Farms, who launched his brand Mr Milk in Mumbai three months ago. Mr Milk does not procure milk from third-party sources, and has a single source working model. “Even people with lactose intolerance can have it. In India, adulteration of milk has created a concern in the last two decades. Usually, milk corporations collect milk from various milk farms and thus, adulteration cannot be controlled. Cows are sometimes injected with hormones to yield higher quantities too,” says Mittal. “The entry of single origin farms, like Mittal’s, are focusing on the traceability of milk to its origin.”

“If we can source our food from origin, why not milk?” Single origin farms promise you purity, which is also a big concern for new mothers, conscious consumers and HNIs, he explains. On their Lonavala farm, spread across 85 acres, they breed Gir and Sahiwal. The cows are housed according to the life stage they are in—whether they are milking or non-milking. The calves are kept close to them. “We like to keep them in luxury. We have a massaging unit. Their fodder is recommended by experts.”

At the centre of the debate is the quality of milk, with consumers having no scope to verify its authenticity. “Consumers are also taking pride in buying stories than the actual product. If you visit an automated plant, you will never find a place to put your hand inside the tank. However, by simply using milking machines, if someone claims the untouched theory, that is just good storytelling,” whatever said, the milk from any FSSAI–registered known brand is hardly different from the milk being consumed by many new players with or without farms. We must not forget that milk is a commodity and it will remain so,” says Sharma.

Milk becomes dubious when it is adulterated beyond permitted levels, and cows are pumped with chemically-induced hormones to produce more milk, says Sheetal Bhatt, owner of Haritt Farms. “We rear Gir Cow to produce A2 milk that has up to 90 per cent protein and only 5-8 per cent fats. The SNF level of our milk is 8.9 compared to A1 strains that barely reach 7.4 with additives. No water is added to thin this milk,” says Bhatt, who opened GOD Café in Dadar to promote a menu revolving around A2 milk. On her farm, milking is done by hand. “We feed our cows four times a day as per body weight, and add Ayurvedic herbs like ashwagandha, jismadh, ajunus, shatavari, jivant, and varidadha to their fodder.” Non-intrusive care includes promoting natural mating without artificial insemination, no antibiotics, and a diet that promotes a menu revolving around A2 milk.

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For those who are not lactose intolerant, both A2 and A1 are fine to consume, thinks Chawla. She also adds that dairy is a common gut irritant food by itself, and if one is intolerant, the problem will persist. “Dairy can also spike insulin and causes...
Happy gut, healthy you

In her new book, a gastroenterologist and British cook explores the process of digestion and how the food we eat influences the way we feel

PRUTHA BHOSLE

BRITISH cook and winner of the BBC’s MasterChef competition in 2017, Dr Saliha Mahmood-Ahmed had plans of writing a book on digestive health and happiness right from her medical degree days. The lack of focus on food and nutrition in medical teaching was a source of irritation for her. “Being an avid gastronome, it bothered me. As I became a doctor, I realised that my patients wanted to talk about food and eating. This cemented my desire to write a book,” she tells.

Her new book titled, Foodology: A Food-lover’s Guide to Digestive Health and Happiness, has come at a time when eating right is key to leading a healthy life. This is not a book about dieting in the conventional sense, nor is it a dietician’s manual on how to make each and every food decision in life. It is an unapologetic celebration of what she believes to be the most amazing organ of the body, that will enhance the way you cook and eat. Dr Saliha has drawn on latest science and her own experiences, as both a doctor and a cook, to write this book. “Quite often, we conceptualise eating ‘healthily’ and eating for ‘pleasure’ as two separate entities. I wanted to use science and my own culinary prowess to bridge this gap. You can eat good food that tastes amazing and nourishes the mind and body without harming your health. Equally, once in a while, it is okay to enjoy indulgent food as well. It’s about finding an equilibrium that works for you,” she adds.

While she is born and brought up in the UK, Dr Saliha hails from a large Kashmiri-Pakistani family. “Food was central to family life. It featured in celebration, as well as in sadness and mourning. My mother worked as a full-time doctor and still managed to put freshly cooked food on the table. That just shows how deeply ingrained the desire to feed her family well was. As a mother, I find myself in the same category. In the book, Dr Saliha offers 50 new, simple, delicious and mostly vegetarian recipes to help everyone explore their gut health and find their own gastronomic happiness.

But does she have a favourite, we ask. “It is very hard to pin down a favourite recipe because they are all close to my heart. I am particularly fond of the recipes that feature in the chapter on ‘Umami’. They are really very moreish and always leave me craving more. I love the addictive miso date and dark chocolate cookies and always have a batch at home,” explains Dr Saliha.

Explaining how certain foods make our gut water, Dr Saliha says that gastrointestinal happiness is significant in everyone’s lives. “Food is central to 21st century life. We have to decide what to eat for breakfast, lunch, dinner and snacks in between each day. And this is the reason why fostering a healthy relationship with food and finding gastronomic happiness is so important. If you are harbouring negative emotions, facing food so many times can be highly injurious to your health. Additionally, we know that what we eat has a huge impact on our long term health and risk of developing certain diseases, driving food choices highly critical,” concludes Dr Saliha.

So, how does the gut really work? And, how can one keep it happy? “The gut is a very complex piece of machinery. It is home to literally billions of bacteria and yeast, and the composition of gut bugs and certain patterns of gut bugs are considered healthier than others in terms of disease prevention. We are discovering the links between the food we eat and how it influences gut bugs in a lot more detail now. It is a fascinating and wide field of research with huge potential for the future,” she explains, adding, “All I want to say to my readers is—love food in all its magnificent shapes and forms, and cook, cook and cook some more.”

SHARIE’S KEEMA SPAGHETTI

SERVES: FOUR PEOPLE (GOURMETS)

INGREDIENTS

- 1 tablespoon olive oil
- 1 white onion, finely diced
- 500g lamb mince, not too lean
- 1 teaspoon minced garlic
- 1 teaspoon dried oregano
- 1 beef stock cube, dissolved in 100ml boiling water
- 250g potatoes (skin on), diced
- 1 teaspoon crushed cumin seeds
- 1 teaspoon red chilli powder
- 1 teaspoon hot paprika
- 3 ripe tomatoes, diced
- 1 beef stock cube, dissolved in 500ml boiling water
- 200g carrots, diced
- 200g frozen peas, defrosted
- 350g dried spaghetti
- 1 long garlic clove
- 1 teaspoon dried oregano
- 1 teaspoon dried parsley
- 200g Parmesan
- Ketchup

METHOD

1. Heat olive oil in a pan, followed by onion, allowing it to soften and take on a gentle golden hue. Add minced lamb and, using a wooden spoon, break it into smaller chunks. Crank up the heat to the highest setting and brown the mince off. You want it to release its own fat and fry off rather than stew in its own juices. Resist the temptation to keep stirring; the mince needs time to brown on each side.

2. When the mince looks sufficiently brown, turn the heat down to medium and add garlic, oregano, turmeric, garam masala, cumin seeds, chilli powder and paprika. Like you want the spices to release their aroma but not burn, which is why turning the heat down a bit is necessary. Add the tomatoes, followed by the beef stock. Allow the mixture to simmer over a medium-low heat for around 35-45 minutes, or until most of the water has evaporated and a rich, fatty, slightly moist, spiced mince remains. Taste the mixture and add salt; the stock cube you added previously is full of umami notes [or should I say commercial MSG] and will season the mince, so be cautious of adding too much. Taste. The mince is ready when the sauce has thickened to a rich consistency. Add the carrots and peas to the mince and allow them to cook through for a further 5 minutes. The idea is that they retain their colour but lose their crunch and soften slightly. Be wary of the mixture becoming too dry and catching at this stage. Just add a few splashes of water from the kettle if things in the saucepan start looking too dry.

3. Once prepared, remove the mince from the heat and set aside.

4. Boil the spaghetti in heavily salted water according to manufacturer’s instructions, to achieve an ‘al dente’ consistency. This usually takes around 6-8 minutes. Drain. What we eat influences the composition of gut bugs and certain patterns of gut bugs are considered healthier than others in terms of disease prevention. We are discovering the links between the food we eat and how it influences gut bugs in a lot more detail now. It is a fascinating and wide field of research with huge potential for the future.

5. Shallow fry the potatoes in vegetable oil until the potato chunks are nice and golden. This takes approximately 5-7 minutes. Drain on kitchen paper.

6. Assemble the dish by tossing the pasta into the mincemeat with about half a cupful of pasta water to moisten everything. Stir really well to combine. You want every bit of the spaghetti to be coated. Tip the tumbling cascades of spiced spaghetti on to a large serving platter and top with the chunks of fried potato and, if you wish, some grated Parmesan. Serve with ketchup (this condiment is mandatory).