Molecular Mixology

Molecular mixology, the new trend in bartending takes inspiration from the art of molecular gastronomy, which combines food of similar composition to create layers, depth, flavour and texture in the cocktail. Techniques like carbonation, jellification, foaming, vapour concentration, spherification, etc., are popular in molecular cocktails.

According to Nilay Khare, a self-motivated hotel management professional with nearly 10 years of experience in hospitality in leading luxury hotel chains and currently working at Oyster’s Beach, “Though a new trend in India, the technique of molecular mixology dates back many years. The first ever example of such cocktails would be layering of drinks based on density and viscosity. Modern molecular cocktails were initially created by gastronomy chefs such as Ferran Adria and Heston Blumenthal. The trend quickly traversed to next level mixologist pioneers like Tony Conigliaro, Eben Klemm, Eben Freeman and Angel Chocano. It is all about using science and creativity.”

When asked about how people are adapting to this new trend and whether they ready to experiment, Nilay says, “Molecular cocktails are a pretty recent evolution for cocktail lovers. People have opened up to experimenting with their taste buds because of which many different cuisines are becoming popular in India. People here are definitely looking forward to experimenting with this new trend. Many exclusive fine-dine restaurants are bringing these drinks on their menu and people are optimistic about this trend.”

Clarifying the difference between classic cocktails and molecular ones, Nilay tells us, “Cocktails generally contain liquor combined with juice, sauce, fruit, honey, milk, syrups, cream, spices, and other flavourings. Cocktails are a liquid form of drinks prepared using shakers. On the other hand, molecular cocktails are complex cocktail creations that use scientific techniques to bring unique texture, taste and consistency in the drink. Molecular cocktails take the basic ingredients of traditional cocktails and use scientific tools and methods to tweak the basic appearance and form of..."
“Almost all aspects of life are engineered at the molecular level. Without understanding molecules we can only have a very sketchy understanding of life itself,” wrote Francis Crick, British molecular biologist.

Suneeta Sodhi Kanga unveils the mysteries of the latest trend in bartending—molecular mixology—by talking to Binny, co-founder of Drinq and Nilay Khare of Oyster’s Beach.

You have a certification from the European Bartending School in Advanced Mixology. How would you define molecular mixology?

Molecular mixology is about using science to alter or change molecular properties of ingredients to change their state of matter. Imagine a whisky savoured marshmallow, seven layers of liquors in one glass, a carbonated Mojito sphere served on a plate instead of a glass, or cotton candy made with vodka and you are getting pretty close. Molecular mixology brings science to the shaker to create new flavours, textures, and surprising presentations that enhance the overall drinking experience.
Bartenders and chefs leading the molecular mixology movement have created incredible cocktails and drinking experiences. Cocktail spheres that explode in the mouth, cocktail caviar, edible cocktails, multi-colour layered cocktails, ones that resemble lava lamps, with foams and bubbles, infused with surprising leather and cigar flavours, with suspended elements, with marshmallows, flavoured ice spheres, frozen ‘nitro’ cocktails, popsicles, filled with cotton candy and much more! The creativity and imagination of these mixologists is endless.

What do you think are the reason for its popularity in India and what demographics of people enjoy these cocktails the most?
Having drinks from a glass has been going on for centuries. People want to try new ways of having cocktails. With molecular mixology, people can eat and sniff their cocktails. Cocktails are enjoyed by everyone who likes to drink alcohol across all age groups. Molecular mixology also goes well with all age groups of people who love to experiment with their drinks. People generally try these cocktails because it’s a new trend in bartending and how we present the cocktail really excites them. Also eating the cocktail is a whole new experience for most.

Do you fuse these with classic cocktails?
Yes, of course, though classic cocktails should not be changed in any way. We make classic cocktails such as the Mojito, Cosmopolitan, Martini, Margarita, Whisky Sour, Sangria, etc., just to have the guests experience their cocktails in a different way. We have invented some recipes such as Gajar Halwa Spheres and Mango Gulkand Spheres.

Which are your two favourite preparations and why?
Mojito spheres and Jagermeister spheres are my favourites because Mojito is the most preferred cocktail and Jagerbomb is the latest trending shot and spheres are also served in the form of shots. Imagine a ball of Jagermeister floating in Red Bull in a shot glass. It looks like a lava ball floating in liquid. Once at an event, people were having more Jagermeister spheres instead of starters! We have also seen people waiting in a queue for their ice ball delights and they are very excited to know how it is made, which is a process of freezing your cocktail only from the outside while the inside remains in a liquid state. Imagine all this is being done live on the bar without any refrigerator.

How long does it take a barman to learn how to make these?
Molecular mixology is an art and skilled job and solely depends on the practice of the bartender. It can be learned in a week’s time but lots of practice is required to become a master in the skill. This is why the courses that we offer have less of theory and more of practical training hours.

What is the equipment required?
Mixologists who work at molecular gastronomy restaurants are fortunate to have easy access to the expensive equipment used by the chef. But a lot can be done with reasonably priced tools in almost any bar and at home too, if you have patience and a little extra time to dedicate to the cocktail preparation. Molecular mixology equipment ranges from simple blowtorches to vacuum chambers, ISI Whips, sous vide machines, cotton candy makers, liquid nitrogen, rotary evaporators and dehydrators.

Are the chemicals used safe for consumption on a regular basis?
Yes, the truth is that the chemicals used in molecular mixology are absolutely safe and 100% vegetarian. We source these from Ferran Adria’s company, who are pioneers of molecular mixology and perhaps the best in the world making edible chemicals for mixology and gastronomy as we don’t compromise in our quality for our clients. As Deepak Chopra once said, “Happy thoughts create happy molecules and healthy thoughts create healthy molecules.”

How does one monitor the consumption of alcohol through these cocktails? Are they more potent than normal classic cocktails?
The quantity of alcohol used is, in fact, less and it tastes very mild so generally the consumption of alcohol is less than a normal cocktail and measurements are according to the recipes of molecular cocktails. The potency is less because it comes in small spheres or as foam or caviar and the quantity of alcohol used is also less when compared to normal cocktails. But if the guest requires high potency molecular cocktails they can be customised accordingly.

Please give us some etiquette tips on drinking these cocktails
There are many ways to enjoy your molecular cocktails. You can eat your molecular sphere directly from the spoon. You can have it as a shot if it is the kind that is served in a shot glass. Caviars can be eaten directly from a spoon. If served in the upper layer of the cocktail which not only makes your cocktail more attractive but also gives texture to your cocktail, let the caviar slip into your mouth directly with the liquid. The caviars will release delicious flavours when they melt. To enjoy your molecular foam you can directly have a shot of your foam from a spoon or you can also sip it at with a straw if it is served on the top layer of the cocktail. It can also be used in dessert shots, such as chocolate foam. The best way to enjoy your ice ball delights in summer is to drink it with the straw with some juice added on. It gives a pleasant flavour and becomes a chilled frozen drink which you can enjoy for a longer time.

Binny Dhadwal, Founder of Flaming Trio and Drinq