

#ARTIFICIAL-INTELLIGENCE

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Measuring Blood Oxygen Level



A new proof-of-principle study shows a smartphone's camera and flash can detect blood oxygen saturation levels down to 70%.

That's the lowest value that pulse oximeters should be able to measure.

When we breathe in, our lungs fill with oxygen, which is distributed to our red blood cells for transportation throughout our bodies. Our bodies need a lot of oxygen to function, and healthy people have at least 95% oxygen saturation all the time.

Conditions like asthma or COVID-19 make it harder for bodies to absorb oxygen from the lungs. This leads to oxygen saturation percentages that drop to 90% or below, an indication that medical attention is needed.

In a clinic, doctors monitor oxygen saturation using pulse oximeters whose clips you put over your fingertip or ear. But monitoring oxygen saturation at home multiple times a day could help patients keep an eye on COVID symptoms, for example.

The new technique involves participants placing their finger over the camera and flash



of a smartphone, which uses a deep-learning algorithm to decipher the blood oxygen levels. When the team delivered a controlled mixture of nitrogen and oxygen to six subjects to artificially bring their blood oxygen levels down, the smartphone correctly predicted whether the subject had low blood oxygen levels 80% of the time.

"With our test, we're able to gather 15 minutes of data from each subject. Our data shows that smartphones could work well right in the critical threshold range."

Another benefit of measuring blood oxygen levels on a smartphone is that almost everyone has one.

"This way you could have multiple measurements with your own device at either no cost or low cost," says co-author Matthew Thompson, professor of family medicine in the School of Medicine.

"In an ideal world, this information could be seamlessly transmitted to a doctor's office.

This would be really beneficial for telemedicine appointments or for triage nurses to be able to quickly determine whether patients need to go to the emergency department or if they can continue to rest at



Excavation of several tools of varying sizes, from large saddle querns to wide mouth bowls have been found with signs of pulses and grain, suggesting the prehistoric humans in this region used them for grinding grains into flour. Roti – the flatbread that is staple to our nation is a direct descendant to the first flatbreads which were cooked and consumed in Africa, eventually giving way to naan and other flatbreads of our subcontinent.



Shubham Agarwal
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Food Blogger and
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History of the Indian Subcontinent is almost as old as the history of the first anatomically modern human beings migrating from the cradle of life - Africa which started roughly 73,000 years ago.

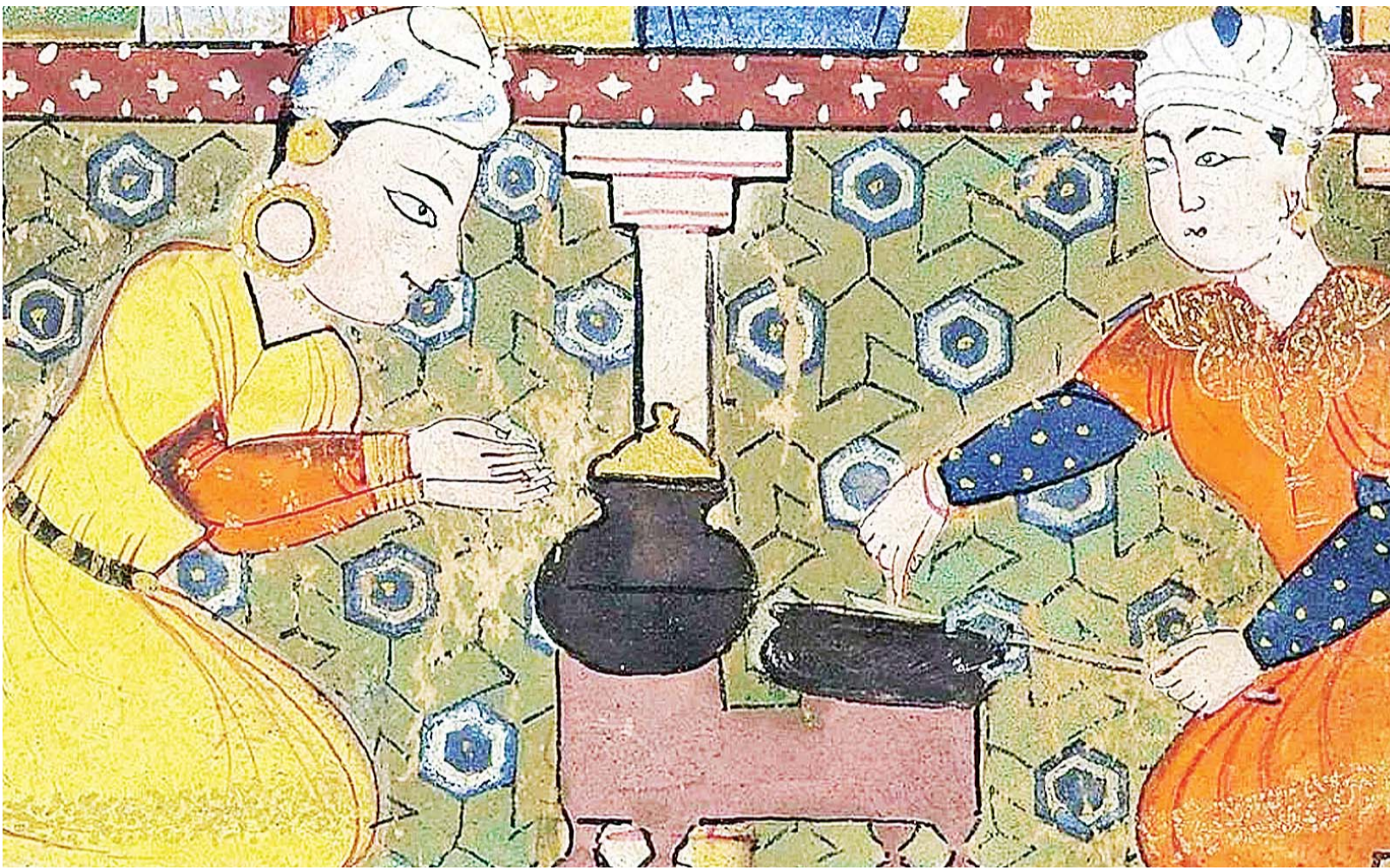
While the earliest known human beings were still far from inventing the word "gourmet" or any word in fact, the seeds of creating and consuming one of the most complex cuisines of the modern world were sowed as they entered through plains of modern day Balochistan, penetrating ever deep in the heart of Bharat.

Since then, the cuisine of our nation has undergone extensive and constant manipulation as it changed hands, ideals and ever changing boundaries.

Prehistoric Cuisine

The signs of first humans entering through Balochistan are still preserved in the Indus Valley Civilization just west of Indus river where domestication of wheat, bar-

We Love Our Food



ley and animals such as sheep, goats and other cattle have been documented.

Bones of cattle animals such as goats, buffalo and pigs give proof that they were domesticated and raised for their flesh.

Alongside the cattle, bones of wild game such as boar, deer and gharial have been excavated suggesting that meat was an integral part of the Prehistoric Bharata.

These food habits though remain mostly shrouded in uncertainties as there are no written recipes and the researchers solely rely on the information obtained from anthropological evidence and cave paintings.

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Vedic Cuisine Mauryan Cuisine

From the prehistoric era, the first empire to emerge in 321 BC was the Mauryan Empire which gave coherent boundaries and a recognizable shape to the subcontinent. This geographically and sociologically huge empire extended from the present

#HISTORY

day Iran to most of the central and northern regions of our nation.

It is the time period where we get our first glimpse at the then prevalent cuisine of Bharat as well as the details of the Arthashastra, written by the great chief minister - Kautilya, of the first emperor - Chandragupt Maurya.

In this text we find clear mentions of how to manage meat houses and liquor stores which means that meat was consumed by the masses and so was alcohol fermented from grains.

The book also mentions the crop cycles in accordance to the climate of the year, which states that rice and millet were the staple during the winters whereas in summers they had barley.

Apart from these two seasonal crops, they had a middle crop which was called the *Mesa* apart from which multiple varieties of rice were available for consumption - virhi, sall, draka etc.

Arthashastra further contains the details of what dishes were to be cooked on which occasion and how the king and his courtiers should eat them, furthermore Kautilya lays down certain specifications regarding the structure of kitchen, the food items to be cooked and the purity to be maintained while cooking.

Under this system, the lifestyle of every person was predetermined based on their birth which boiled down even to the kind of food they had and were allowed to eat.

All this was accentuated by the rise of new religions - Buddhism and Jainism which condoned the consumption of meat thus giving rise to the cuisine that came to be known as Sattvic, i.e. food that contains three yugic qualities 'sattva'.

Cattle were mostly bred for milk and the consumption of meat either relegated to the lower classes or completely banned.

Dishes like Payasam – a form of kheer, sastrmudu – stir fried bananas, adhirasam – Indian style fried doughnut which used ingredients that were native to the region.

Mughal Era

Owing to the prosperity and ease of traveling through the silk routes, Mongolian tribes repeatedly invaded our nation, bringing with them their culture and their food.

It was the first Mughal emperor - Zahir al-din Muhammad "Babur" who set up a permanent residence after being expelled at the age of 11 from his parental kingdom of Adijhan, Fergana, present day



Uzbekistan.

His memoirs "Baburnama" gives a detailed account of the then prevalent cuisine of Bharat as well as what the Mughals brought with them.

He described the regional cuisine, a cuisine of little delight as there were no fruits nor any delicacies that fascinated him.

The only delight he found was in Mango which reminded him of the fruits of his home, the grapes and the musk-melons and he also writes about missing wines that were available in his ancestral land.

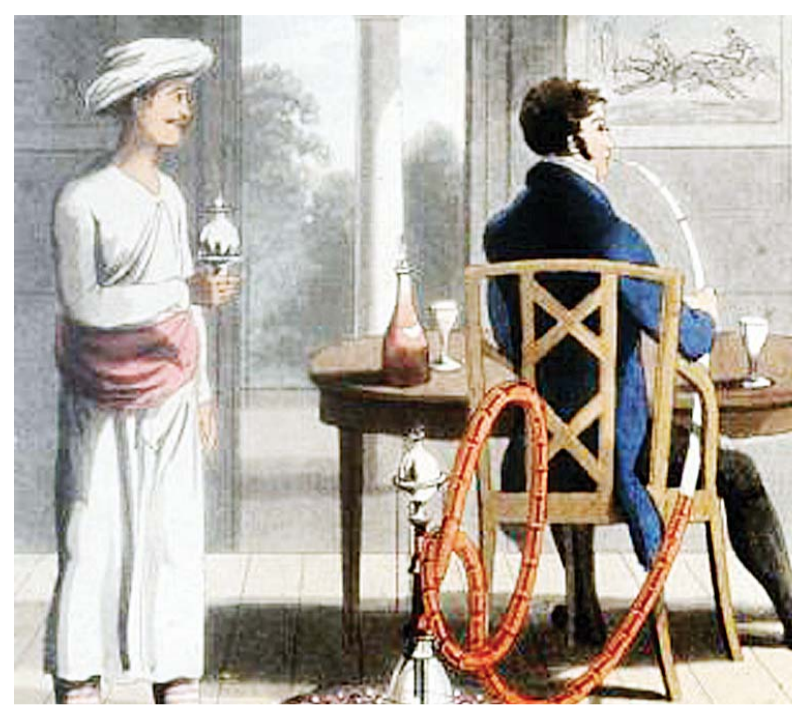
While he followed the Islamic faith which preaches temperance in wine and he eventually did give up wine completely but he was conflicted about it and even after giving up wine he hosted huge wine-fueled parties "Dawat" in which old wines of Kabul and Fergana were served. A special mention of "Bukhara" wine is what we find in the memoirs which Babur missed specifically.

Coming from the Persian-



Human Resource Professional Day

Being in HR can be a difficult task to handle because of all the crucial tasks that the HR department does help keeps the business running and successful. While there may be some that don't like that department, they're vital and essential and sometimes they may not get enough credit for what they do. Human Resource Professional Day is a holiday made to change the perspective people have of HR and learn about why their job is valuable for businesses.



Mongolian roots, he often travelled with his own cooks which then worked with the native cooks of Bharat to produce an all new Mughlai cuisine which is still one of the most complex cuisines of the modern world.

Thus the food history of our nation got an added new character and complexity.

Western Influence

As the nation changed rulers, swapping the Mughals for Britishers, so changed the cuisine yet again.

While the Britishers were successful in colonizing the subcontinent, other powers tried their best to make this rich nation a colony under their rule.

The Portuguese were one of these colonizers and just as their British counterparts, they introduced, among other things, a lot of elements that changed this cuisine forever.

The Britishers created a lot of completely new dishes and drinks for their officers that were posted in the region from the local ingredients available while the Portuguese introduced a lot of firsts, like the tomato which was brought from Spain.

This arguable "fruit" was cultivated extensively and the populace took extreme liking to it.

They also introduced the Red Chili to the region around present day Rajasthan which is still cultivated and has become one with the region, even getting a local name: Mathaniya.

The British, owing to their other colonies all over the globe, resulted in something that was unintentional and unheard of in those days

Arthashastra further contains the details of what dishes were to be cooked on which occasion and how the king and his courtiers should eat them.

when communication was as fast as the man on the telegraph and even then only basic messages could be relayed.

They resulted in an entire cuisine exchange programme.

While I am aware that this sounds stupid and I agree they were not the sole reason for this, they were an integral part of a long chain and it really did happen.

The catalyst were the two horrific World Wars which were fought in those days.

In both of them, Britain was a prominent power and thus employed all its colonies, including British India in the wars.

While the war stories of how Britain got its own Gurkha regiment and how there are several instances of British Indian soldiers receiving the highest gallantry awards of Britain are topics of another whole article, it's what happened in and after those wars is what is relevant to our topic.

As soldiers moved from continent to continent, so moved their food and culture around it. That is why, there is an onslaught of sushi in Hawaii which was left by the Japanese and that is also why in parts of Northern and Central Africa, vegetarian lentil soup which are true copies of Daal that we eat in our daily meals are cooked every day.

Is it just me or is there a twisted sense of humour that the Universe carries, sending the first Roti from Africa to Bharat and then completing the circle by sending back parts of our cuisine to their fertile plains.

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#J'ADORE Cute Ponytail Hairstyles

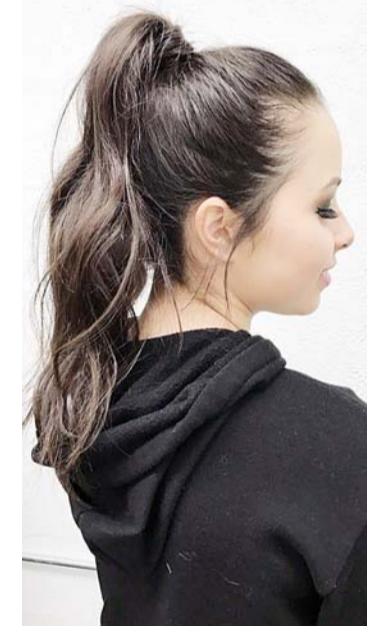
Whether it's neat or messy, high or low, or super fancy and braided, there's no shortage of cute ponytail hairstyles to choose from.

One of the best parts about ponytail hairstyles is that they are easy to learn and require little to no equipment. The right ponytail can transform just about any haircut into a completely different style, and you can find the perfect ponytail hairstyle for just about any occasion. Even if you don't like the idea of a neat ponytail tied perfectly tight, you can pull off an effortless attractiveness with the messier look of a textured ponytail.

Whatever ponytail style you go with, understand that the key to this hairstyle is its flexibility - every face shape and hair texture can find a ponytail style that works well for them.

So let's check out some of the top ways to rock the ponytail trend!

Long Textured Ponytail



This example does a great job of showcasing how stylish the messy look of a textured ponytail can be. It has an effortless way of looking attractive!



Half-Up Ponytail

This mid-height ponytail has a sense of controlled messiness that works great with this woman's hair texture. If you have similar black hair, definitely consider this style!



Ponytail With Headband

Ponytails become even more flexible and stylish when you add some accessories into the mix. In this example, the headband helps keep most of the hair out of the way while allowing a few strands to frame the face.



High Ponytail With Knot

This example showcases a great look for anyone with straight hair. The high ponytail comes out of a hair knot which helps to give it more volume and a more interesting style.

Loose Wavy Ponytail

The amount of volume in this woman's hair is simply amazing, due to both the natural curls and the textured wavy ponytail style. This example is a perfect mix of messiness and control all in one hairstyle.

Curly Ponytail

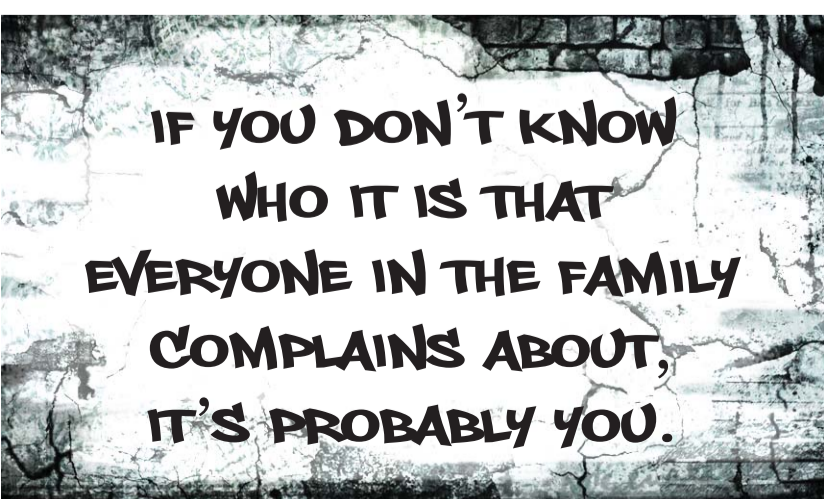
If you have curly hair and don't want the messy look of a textured ponytail, consider the look of this example. The neat hair on top is a great contrast to the wavy curls on her long ponytail.

Big Top Knot

Every hair texture has its pros and cons, and the key to finding the perfect ponytail is embracing your specific hair. In this case, the messy look of a big top knot looks stylish and also keeps her hair out of the way.



THE WALL



BABY BLUES



By Rick Kirkman & Jerry Scott

ZITS



By Jerry Scott & Jim Borgman