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Form No. IV (Rule No. 8) (Central Rule, 1956)

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1. Place of Publication:

Dapoli Urban Bank Senior Science College, Dapoli Dist. Ratnagiri

2. Publisher's & Editor's Name:

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Nationality- Indian

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"CHEMISTRY IN DAY TO DAY LIFE"

Chemistry is a big part in our everyday life. We start the day with Chemistry. One can find chemistry in daily life in the foods we eat, the air we breathe, cleaning chemicals, our emotions and literally every object we can see or touch. Here's a look at examples of everyday chemistry. Some common chemistry may be obvious, but others might surprise us. Our body is made up of chemical compounds, which are combinations of elements. The emotions that you feel result of chemical are a primarily messengers, Love, jealousy, neurotransmitters. envy, infatuation and infidelity all share a basis in chemistry. They sit there, so harmless-looking on the kitchen counter. Yet as soon as we cut an onion, the tears begin to fall. What is it in an onion that makes them burn our eyes? We can be sure everyday chemistry is the guilty party. Soap is a chemical that mankind has been making for a very long time. You can form a crude soap by mixing ashes and animal fat. How can something so nasty actually make you cleaner? The answer has to do with the way soap interacts with oil-based grease and grime.We will also deal with the chemistry coffee, smoking, of chemistry of sleep, etc.

The day we start with: Toothpaste:

Ever wonder where toothpaste and mouthwash came from? What people



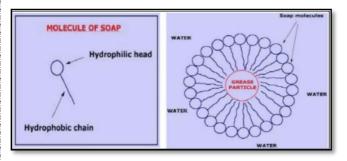
for toothpaste used before invention of Colgate, Pepsodent or Some of Aquafresh? the techniques cultures in included chewing on bark or sticks with frayed fish feathers, ends. bones and porcupine quills.

So....what's in the toothpaste of the 90s? Sodium monofluorophosphate color flavoring Fluoride foaming agents (Sodium Lauryl Sulfate). Herbal toothpastes have gained popularity form people looking for a "natural" toothpaste or for those who don't want fluoride in their dental cleansers.

The Chemistry of Soaps/Detergents:

" Surfactants allow us protect a water surface and blow beautiful soap bubbles which delight our children" P.G. DeGennes. SOFT MATTER. Nobel Lecture. 1991. There are substances which can be dissolved in water (salt for example), and others that can't (for example oil). Water and oil don't mix together, so if we try to clean an oily stain from a cloth or from the skin, water is not enough. We need soap. Because of this dualism, soap molecules act like a diplomat, improving the relationship

between water and oil. How? When soap is added to the water, the hydrophilic heads of its molecules stay into the water (they like it!), while the long hydrophobic chains join the oil particles and remain inwards (escaping from the water). In that way, they form circular groups named micelles, with the oily material absorbed inside and trapped. Soap cleans by acting as an emulsifier. It allows oil and water to mix so that oily grime can be removed during rinsing. Soap cleans by acting as an emulsifier. It allows oil and water to mix so that



oily grime can be removed during rinsing.

Coffee makes our morning fresh and energetic. The reason?

Caffeine is a central nervous system stimulant. It's one of the most popular drug in the world, consumed by up to 90% of people in the world in different form. Caffeine stimulant of the central nervous system (CNS), the cardiac muscle increases heart rate, and respiratory system -relaxes air passages permitting improved inhalation, and allows some muscles to contract more easily. It acts as a diuretic it increases the rate of bodily urine excretion, and delays fatigue having the effect of warding off drowsiness

restoring alertness. Caffeine and absorption occurs in the body very quickly. It enters the bloodstream through the stomach and intestine, and its effects are felt as 15 minutes soon as after consumption. completely It is absorbed within 45 minutes of intake. Caffeine does not accumulate in the bloodstream nor it is stored in body, but it does persist but only about ½ is eliminated in the urine within 6 hours. Caffeine sensitivity refers to the amount of caffeine that will produce negative side effects in a particular person. Regular caffeine consumption reduces sensitivity to caffeine, and a higher intake is



needed for the same effects. So caffeine is considered to be an addictive drug.

Let's move to the kitchen... Why do onions make us cry?

Inside the onion cells there are some chemical compounds that contain sulphur. When we cut an onion its cells are broken and those chemical compounds then undergo a reaction that transforms them into more volatile sulfur products, which are released into the air. These sulfur compounds react with the moisture in our eyes forming sulfenic acid, which produces a burning sensation. The

nerve endings in our eyes are very sensitive and so they pick up on this irritation. The brain reacts by telling our tear ducts to produce more water, to dilute the irritating acid.

There are some tricks to make oniondicing less problematic:

You can freeze the onion for 10 minutes before cutting it. The The cold temperature of the onion will slow down the chemical reaction which forms the volatile sulfur compounds. The sulfur- containing compounds also leave a characteristic odor on your fingers. You may be able to remove or reduce some of the smell by wiping your fingers on a stainless steel . If the sulfur compounds bind to the steel, then the odour is removed from your fingers.

Chop the onion under cold water. The volatile sulfur compounds will be released but then they react with the water, instead of reaching your eyes.



Chemistry at the breakfast table:

We've all used raising agents in cooking and baking but do you know the chemistry involved? There are two raising agents used in most recipes, yeast and baking powder. Yeast (Saccharomyces cerevisiae) is a micro-organism that contains the

enzyme zymase that converts the



sugars in bread into carbon dioxide and ethanol.

Raising Agents: Gluten in the bread is a fibrous compound that stretches as the bread rises and traps the carbon dioxide in an elastic framework. Yeast grows in a warm environment so the bread is kept warm until it rises. When it is placed in a hot oven the yeast increases production of carbon dioxide initially then dies as the temperature rises. The carbon dioxide trapped in the bread expands and the bread rises even more. The flavour comes partly from the ethanol produced by the yeast.

Let's go for a Cigarette:

Smokers don't think about the chemical in the cigarettes. They only think about how cigarettes help them cope with the stress of daily life, how cigarettes quiet them down when they are angry, help them relax at the end of a long day, comfort them when they were sad or lonely. But do they know that there are harmful chemicals in cigarette????

There are more than 3000 chemicals in the cigarette smoke. When one smokes, nicotine is absorbed through the skin and

mucosal lining of the mouth and nose or by inhalation in the lungs. In the brain, nicotine increases the of the neurotransmitter dopamine, which is a chemical in the brain responsible for feelings of The effects pleasure. acute nicotine subside within minutes, so people continue dosing themselves frequently throughout the day to maintain the pleasurable effects of nicotine and to prevent withdrawal symptoms.

Let's see some drinks to celebrate joy or to bypass sorrow:

There are 3 types of alcoholic drinks which are beer, wine and All this alcoholic drinks spirits. contain ethanol (C₂H₅OH) which is one type of alcohol. Alcohol's direct action on the brain is as a depressant. It generally decreases the activity of the nervous system. The alcohol can cause disinhibition, i.e., inhibits cells and circuits in the brain which themselves are normally inhibitory. More than 90% of the ethyl alcohol that enters the body is completely oxidized to acetic acid. This process occurs primarily in the liver. remainder of the alcohol is not metabolized and is excreted either in the sweat, urine, or given off in one's There are several routes of breath. metabolism of ethyl alcohol in the The major pathways involve the liver and in particular the oxidation

of ethyl alcohol by alcohol dehydrogenase (ADH).



Time to go to the bed:

There is a chemical in our brain called adenosine that binds to certain receptors and slows down nerve cell activity when we are sleeping.

Conclusion

Therefore that one see can chemistry is whole in on the everyday life. Without chemistry life is not possible. Therefore chemistry is the great way to know the life in better way. If anyone think about chemistry before doing something, it helpful would be to anyone. Therefore chemistry may be enjoyable to anyone.

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Article by-

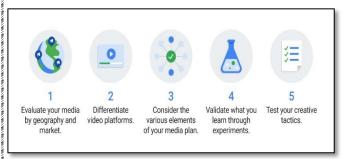
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How Do Marketing Strategies differ Across different Cultures?

The cultural diversity is not limited to national identities, but also has differences in terms of values, legacy and cultural norms between diverse socio economic and generations. Companies nowadays are actually looking-into the cultural differences and considering these diversities seriously for targeting the demographic and geographic diverse people. The challenges include abilities in identifying the various cultures for ensuring that not offensive the consumers for being not sensitive to provision of cultural differences. Cultural values, norms, policies and beliefs vary from region depending region to geographical areas. Norms, values and culture are the inevitable parts of the society and understanding of the culture and having a deep respect towards it is equally important for successful the organization.

The organizations' are trying to enter



into a new culture, understanding of that culture and having insights of the social values and ethos are important for incorporating marketing strategies'

- The organizations need to make demographic and cultural assumptions those appeals in getting the products outside conventions.
- Due to differences in culture, diversity in choices and preferences of personal space, time and color have been different from one another.
- The differences between the beliefs and cultures impact on the customers globally and hence marketers need to understand it for better strategy making.
- Prepare advertising strategy to be based on the diverse demographics that help to reflect the cultural differences.
- The branding, advertising and campaigning have to be dictated by the local culture for better penetration in the market.
- Clear communication, the preferences and needs of the customers are understood.
- The marketers need to have a good understanding of the cultural differences and they need to have individualistic ideas while making strategies for catering the individual needs.
- Understanding and having knowledge about diverse culture make the marketers easy to formulate and chalk-out

strategies as per the requirement.



The differences between the beliefs and cultures impact on the customers globally and hence marketers need to understand it for better strategy making. It is quite an imperative aspect of knowledge about audiences is an important aspect to about culture. understand concentration and focus on the detailing while making marketing campaigns' is equally important and hence it considers the management of it. Moreover, standpoint is customer also important factor that focuses on the minute changes related to varying demographics and is an integral part of the organization.

In this context, we see that the success of an organization largely depends on having a good understanding and good insights about the culture, preferences' and language of the people. With a huge understanding of cultural diversity, it leads towards a high level of acceptance.

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Internet of Things (IoT)



The Internet of Things (IoT) is the concept of connecting any smart device to the Internet and to other connected devices. The IoT is a giant network of connected things and people – all of which collect and share data about the way they are used and about the environment around them.

That includes extraordinary an number of objects of all shapes and sizes – from smart microwaves, which automatically cook your food for the right length of time, to self-driving cars, whose complex sensors detect objects in their path, wearable fitness devices that measure your heart rate and the number of steps you've taken that day, then use that information to suggest exercise plans tailored There to you. are footballs that even connected track how far and fast they are thrown and record those statistics via an app for future training purposes.

Devices and objects with built in sensors are connected to an Internet of Things platform, which integrates data from the different devices and applies analytics to share the most valuable information with applications built to address specific needs. These powerful IoT platforms can pinpoint exactly what information is useful and what can safely be ignored. This information can be used to detect patterns, make recommendations, and detect possible problems before they occur.

One famous example of application of IoT is Amazon Alexa enabled Smart Speaker (Echo), which takes voice commands from you and plays appropriate contents searching from the internet.

Some of the advantages of IoT include the following:

Ability to access information from anywhere at any time on any device.

Improved communication between connected electronic devices. Transferring data packets over a connected network saving time and money.

Automating tasks helping to improve the quality of a business's services and reducing the need for human intervention.

Some disadvantages of IoT include the following:

As the number of connected devices increases and more

information is shared between devices, the potential that a hacker could steal confidential information also increases.

Enterprises may eventually have to deal with massive numbers -- maybe even millions of IoT devices, and collecting and managing the data from all those devices will be challenging.

If there's a bug in the system, it's likely that every connected device will become corrupted.

Since there's no international standard of compatibility for IoT, it's difficult for devices from different manufacturers to communicate with each other.

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Article by-

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Noble Lourets of Zoology



David Julius

In the late 1990s and early 2000s, a series of discoveries by David Julius and Ardem Patapoutian, independently working in the United States, uncovered the sensory sensors in our body and the mechanisms by which they interact with the nervous system for sensing and response. on a specific touch. Julius, 66. Patapoutian, 54, shared the 2021 Nobel Prize in Physiology for their groundbreaking research. The Nobel Prize in Physiology is the first prize in the natural sciences.

Ardem Patapoutian (born 1967, Beirut, Lebanon):

Is American molecular an biologist and neurobiologist from Lebanon, who is involved in mechanoreception, ability the of animals to sense and respond to certain types of stimuli, particularly touch and response. He is known for his research on the molecular basis. that change. pressure or posture. Among his major discoveries was the



Ardem Patapoutian

identification of ion channels known as Piezo1 and Piezo2 that translate mechanical forces into neural signals. The opening of these channels has allowed new insights into how cells respond to mechanical factors such as stretching and pressure, and the role of these responses in body functions, from temperature regulation, blood pressure and urination to reflexes and pain sensations.

In 1986, after a year of studies at the American University of Beirut, Patapoutian emigrated to the United There States. he attended University of California, Los Angeles, for undergraduate studies, earning a B.S. degree in molecular, cellular, and developmental biology in 1990. He then enrolled as a graduate student at the California Institute of Technology, where he continued his study of transcriptional regulation developing organisms. In 1996, after completing a Ph.D. in biology, he accepted a postdoctoral fellowship at the University of California, San Francisco. During that time Patapoutian shifted his research focus to developmental programs underlying the specificity of somatosensory neurons involved in the sensations of touch and pain.

Magnified phytoplankton angulatum) (Pleurosigma visible through a microscope is the preferred subject for testing under high magnification microscopy. microscopy. Blog 2009, Home History and Society, Science and Explore Discoveries. Technology, After joining the Scripps Institute as an assistant professor of cell biology in 2000, Patapoutian began studying transient receptor potential (TRP) channels discovered by Julius a few years earlier. One of Patapoutian's first major discoveries was identification of the cold-sensitive TRPM8 ion channel. His research also led to the discovery of TRPA1 (called the horseradish receptor), which acts as a sensor for harmful stimuli, including colds and pain.

After that, Patapoutian focused their efforts on identifying **TRP** trigger channels that tactile, postural positional, and (proprioceptive) sensations. performing a functional screening of turning individual genes on and off in cells and measuring gene activity in response to piezoelectric mechanical forces, Patafutian discovered two ion specialized channels mechanoreception. The channels were as Piezo1 and According to the channel properties,

Piezo2 is the primary sensor of touch, whereas Piezo1 detects changes in blood flow and plays an important role in vascular development.

David J. Julius (born November 4, 1955):

Is an American physiologist and Nobel laureate known for his work on the molecular mechanisms of pain and heat, including the characterization of capsaicin, menthol, and the temperature-determining receptors TRPV1 and TRPM8. He is a professor at the University of California, San Francisco.

Julius gained the 2010 Shaw Prize in Life Science and Medicine and the 2020 Breakthrough Prize in Life Sciences. He became presented the 2021 Nobel Prize in Physiology or together with Medicine Ardem Patapoutian Julius became born to an Ashkenazi Jewish own circle of relatives (from Russia) in Brighton Beach, Brooklyn, New York, wherein he attended Abraham Lincoln High School. He earned his undergraduate diploma from Massachusetts Institute of Technology in 1977. He attained his doctorate from University California, Berkeley in 1984, below joint supervision of Jeremy Thorner and Randy Schekman, wherein he diagnosed Kex2 because the founding of furin-like member proprotein convertases. In 1989, he finished his post-doctoral schooling with Richard Axel at Columbia University wherein cloned and characterised serotonin 1c receptor. He began out his profession as college on the University of California. San Francisco in 1989. In 1997, Julius's lab cloned and characterised TRPV1 that's the receptor that detects capsaicin, the chemical in peppers that makes them "hot". They observed that TRPV1 additionally noxious detects warmness (thermoception). TRPV1 is a part of a massive own circle of relatives of structurally associated TRP (brief receptor potential) cation channels. Animals that lack TRPV1 (the usage of genetic knockouts of the protein) lose sensitivity to noxious warmness and capsaicin. Julius's lab additionally cloned and characterised TRPM8 (CMR1) and TRPA1, each contributors of the TRP superfamily. They established that TRPM8 detects menthol and cooler temperatures and TRPA1 detects mustard oil (allyl isothiocyanate These observations recommended that TRP channels locate a number of temperatures and chemicals. David Julius's lab has additionally made contributions to the look at of nociception with the aid of using coming across pollution that modulate those channels, describing specific variations of the channels in various species and fixing the cryo-EM systems of several channels.

Julius was awarded the 1st PerlUNC Neuroscience Award in 2000 for his work on capsaicin receptor replication. In 2010, he was awarded a Shaw Award for his work in the identification of ion channels related to various aspects of nociception. In 2014, Johnson & Johnson was awarded the Paul Janssen Biomedical Research Award for his discovery of the molecular basis of pain and thermal sensors. In 2017 he received the Gairdner Foundation International Prize and the HFSP Nakasone Prize, the 2010 Prince Asturias Award for Engineering and Scientific Research, the 2020 Life Science Innovation Award and the 2020 Kavli Neuroscience Award. Patapoutian) and BBVA Foundation Frontiers of Knowledge Prize 2020.

In 2017, Pataputyan became Professor of Neuroscience at Scripps. In addition to the Nobel Prize, he was awarded the Lewis S. Rosensteel Prize (2019, together with Julius) and Kavli Neurobiology (2020, together with Julius) for excellence in basic medical research. He was a Fellow of the American Association for Advancement of Science (elected 2016) and National Academy of Sciences (elected 2017), and a Fellow at the Howard Hughes Medical Institute (2014).

David Julius and Ardem Patapoutian identified a mechanism by which touch sensors interact with the nervous system. The five senses that people perceive and experience the world around them are well known. The internal mechanisms of the human body by which we perceive and respond to light, sound, smell and taste have been very well studied for decades. Understanding how we feel hot or cold, squeezing and straining

and our sensations of physical pain has long been a challenge for scientists.

Julius and Patapoutian won awards for their discovery of temperature and tactile receptors. Simply put, they find molecular sensors in the human body that are sensitive to heat and mechanical pressure, making us warm or cold, or "feel" when we touch a sharp object on our skin.

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Article byMiss. Rohini Naik
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Phodshi (Chlorophytum tuberosum)

A Rare Medicinal Plant

Chlorophytum tuberosum (Roxb.) Baker in J. Linn. Bot. 15: 332. 1876; Cooke, Fl. Pres. Bombay 3: 281. 1958 (Repr. Ed.); Sharma et al. Fl. Maharashtra state Monocotyledons 129. 1996; Jain, Dict. Ethn.51. 1991.'Phodshi'.

Herb root fibers cylindric, with ellipsoid tubers. Leaves 6-12, membranous, sessile. Flowers white. Capsule obovoid, shining, emarginated, cells 4-6 seeded.



Fls. &Frts : June- September

Uses : Tonic: Fresh / dried tubers are given.

Stomach Problems: Fresh leaves are used as vegetable and eaten specially in

rainy season

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Article By
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Biodegradable Flip~ Flops



The most affordable footwear which is used worldwide are flip-flops which account for a large percentage of plastic waste that ends up in landfills, on seashores and in oceans. Since these are commonly used for a short period, they are discarded after a few uses and later end up in oceans. These take hundreds of years to decompose, killing marine life and contaminating the water supplies.

Now researchers have invented a new type of flip-flop. Made from an algae-based plastic, it's designed to break down in soil or compost.

This work all started with surfboards.

Most of those boards have a plastic core made from polyurethane (Pah-lee-YUR-eh-thayn). It's not biodegradable. And its ingredients come from crude oil or natural gas. Both are fossil fuels. Some years ago, a company asked the UCSD team to develop a greener surfboard, one that would biodegrade and not depend so much on fossil fuels.

So the team turned to algae. Algae make lots of oils and other carbon-based chemicals. Those can be used to make compounds called polyols (PAHL-ee-ahls). These have multiple groups of linked hydrogen and oxygen atoms. And they can be used to make one of the ingredients that makes up just more than half of the polyurethane in the new flip-flops.

Several things make these flipflops digestible to microbes. Their foam has many pores. Microbes use the pores to reach more of the material and eat away at it. Thus consequently making it Biodegradable

Article By Mrs. Amruta Mohite

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Jagdish Chandra Bose: Prominent Interdisplinary Scientist in India

A biologist, botanist, physicist, author and an inventor — Jagdish Chandra Bose was a man who had donned many hats in his life. Born in 1858, in the district mymensingh of the Bengal Presidency (present day Bangladesh), Bose was known most significantly for his research on radio development. The Institute Electrical and Electronics Engineers, a New York-based international body, even called him the 'Father of Radio **Science**' since the science behind radio technology was first explained by Bose.

Even though he belonged to a well-to-do family, Bose's father believed it was important to know one's mother tongue and people before mastering English.

At a conference in 1915, Bose looked back on his time in the village *pathshaala* and said, "At that time, sending children to English schools was an aristocratic status symbol. In the vernacular school, to which I was sent, the son of the Muslim attendant of my father sat on my right side, and the son of a fisherman sat on my left. They were my playmates."

He also credited the *pathshaala* as the place where he developed a keen interest in the "workings of Nature".

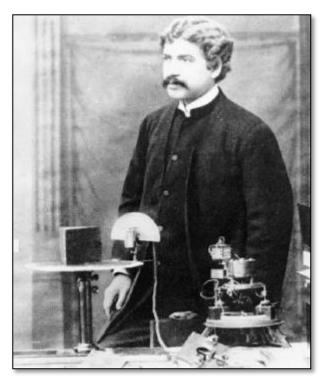
Following is a brief timeline of his scientific activities.

1894 - 1899: Created radio-waves as short as 5mm. Such waves are now better known as microwaves and are used in radars, ground and satellite communication, remote sensing and microwave ovens. Also devised a portable apparatus (10" x 12") for the study of their optical properties. It had the earliest waveguide and horn antenna of today's microwave engineering.

Most notably, in 1895, he was the first to demonstrate the wireless reception transmission and electromagnetic waves at Presidency College (now Presidency University), Kolkata. These waves had a frequency of 60 GHz and travelled a distance of over 23 meters. A plaque from IEEE, this immortalizing landmark achievement exists today at Presidency University, Kolkata.

Indeed, Bose was a pioneer of multimedia communication in every way.

1899 - 1902: Initiated detailed study of coherer leading to his discovery of the common nature of the electrical response to all forms of stimulation, in animal and plant tissues as well as in some inorganic models. In 1900, his paper titled "On the Similarity of Responses in Inorganic and Living Matter" at the International Congress



of Physics, Paris garnered huge appreciation.

Sir J.C. Bose demonstrating his wireless millimeter wave (microwave) experiments at the Royal Institution, London in January 1897. This predates the wireless experiments at Salisbury Plain [3, 4] in May 1897 by Marconi, to whom the Nobel prize was however awarded

1902 - 1907: He continued efforts to device inorganic models of the biophysical phenomena underlying electrical and mechanical responses to stimulation, the transmission of excitation in plant and animal tissues and of vision and memory.

1907 - 1933: During this period he devoted himself mainly to the study of response phenomena in plants, the complexity of whose responses lies intermediate between those of inorganic matter and animals.

The Bose Institute:

Inspired by nationalist ideals, in 1917, his 60th birthday, on Bose founded the Bose Institute. The Bose Institute is Asia's first modern research centre which focuses interdisciplinary research. It has conducted research the across board, in the fields of plant sciences, structural biotechnology, biology, biomedical sciences and molecular biology. It also fosters research in interdisciplinary physics such astroparticle physics and cosmic rays and foundations of quantum physics. In 1971, it became an autonomous grant-in-aid institution of of Department Science and Technology of the Government of India.To recognise his achievements field of in the wireless telecommunications, a crater on the moon has been named after Bose. The crater has a diameter of 91 km and is located near Crater Bhabha (named after Indian nuclear physicist Homi Bhabha) and Crater Adler (named after German chemist Kurt Adler).

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Article By

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What is the Omicron variant?

The Omicron variant of COVID-19 has been called a variant of concern by WHO based on the evidence that it has several mutations that may have an impact on how it behaves. There is still substantial uncertainty regarding Omicron and a lot of research underway to evaluate its transmissibility, severity and reinfection risk.

How did the Omicron variant develop?

When a virus is circulating widely and causing numerous infections, the likelihood of the virus mutating increases. The more opportunities a virus has to spread, the more opportunities it has to undergo changes.

New variants like Omicron are a reminder that the COVID-19 pandemic is far from over. It is therefore essential that people get the vaccine when available to them and continue to follow existing advice on preventing the spread of the virus, physical including distancing, wearing masks, regular handwashing and keeping indoor areas ventilated.

It is also crucial that vaccines and other public health measures are accessible everywhere. Vaccine inequity leaves lower income countries – many of them in Africa – at the mercy of COVID-19. Well-

supplied countries must urgently deliver the doses they promised.

Is the Omicron variant more severe than other COVID-19 variants?

Early findings suggest that Omicron might be less severe than the Delta variant, but more data is needed and WHO warns that it should not be dismissed as "mild". Studies are ongoing and this information will be updated as it becomes available.

It is important to remember that all variants of COVID-19 can cause severe disease or death, including the Delta variant that is still dominant worldwide, which is why preventing the spread of the virus and reducing your risk of exposure to the virus is so important.

Is the Omicron variant more contagious?

Omicron is spreading more quickly than other variants. Based on the information available, WHO believes it is likely that Omicron will outpace the Delta variant where there is COVID-19 transmission in the community.

However, being vaccinated and taking precautions such as avoiding crowded spaces, keeping your distance from others and wearing a mask are critical in helping to prevent the spread of COVID-19, and we know these actions have been effective against other variants.

Does the Omicron variant cause different symptoms?

There is no information to suggest that Omicron causes different COVID-19 symptoms from other COVID-19 variants.

Are the COVID-19 vaccines effective against the Omicron variant?

Researchers are looking into any potential impact the Omicron variant has on the effectiveness of COVID-19 vaccines. Information is still limited, but there may be a small reduction in the effectiveness of vaccines against severe illness and death, and a decline in preventing mild disease and infection. However, WHO reports that so far it looks like the currently available vaccines offer significant protection against severe disease and death.

It is also important to be vaccinated to protect against the other widely circulating variants, such as the Delta one. When it's your turn, make sure to get vaccinated. If your vaccination involves two doses, it's important to receive both in order to have the maximum protection.

Do current COVID-19 tests detect the Omicron variant?

The widely used PCR and antigen-based rapid diagnostic tests

continue to detect infection of COVID-19, including Omicron.

How can I protect myself and my family against the Omicron variant?

The most important thing you can do is reduce your risk of exposure to the virus. To protect yourself and your loved ones, make sure to:

- Wear a mask that covers your nose and mouth. Make sure that your hands are clean when you put on and remove your mask.
- Keep a physical distance of at least 1 metre from others.
- Avoid poorly ventilated or crowded spaces.
- Open windows to improve ventilation indoors.
- Wash your hands regularly.
- When it's your turn, get vaccinated. WHO-approved COVID-19 vaccines are safe and effective.

Reference – By UNICEF

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