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## A STUDY ON HARMFUL EFFECTS OF TOBACCO AND ARECA NUT AND ITS BAN IN SEVERAL STATES OF INDIA: SPECIAL REFERENCE TO HAPPY LIFE PAN MASALA MUKHWAS AS A HEALTHY SUBTITUTE

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**Abstract:** These days many governments are banning Pan Masala Gutka which contains Tobacco and even Areca Nut. Areca nut is the seed Areca catechu, and it fills in a significant part of the tropical Pacific, Asia and parts of East Africa. The previous decade has seen a critical change in outlook in tobacco-related approaches that has prompted a huge diminishing of the utilization of tobacco in numerous nations. Epidemiologic investigations of oral cancer show solid relationship with the utilization of betel nut, liquor, tobacco and cigarette smoking. In Taiwan, around 85% of oral cancer patients routinely use betel nut. The utilization propensities for these substances may just be related with the beginning phases of oral cancer advancement, while the later phases of cancer movement might be all the more firmly connected with other outside elements. Notwithstanding, virtually these advances have happened in industrialized nations. Lamentably agricultural nations' strategies have lingered a long ways behind and tobacco utilization in these nations keeps on rising. Enactment to control tobacco use in non-industrial nations has fallen behind the sensational ascent in tobacco utilization. India's enemy of tobacco enactment, first passed at the public level in quite a while, to a great extent restricted to wellbeing admonitions and end up being lacking In the most recent decade state enactment has progressively been utilized however has needed consistency and the multipronged techniques important to control interest. This study is also giving healthy substitute for those who are badly trapped with chewing habit of tobacco added / areca nut added pan masala or gutka. Happy Life Company has been found as a first company which sells Pan Masala as a Mouth Freshener. It is completely good for our health with no to spit and swallowable. This product is a revolutionary substitute of unhygienic traditional Pan Masala, as it has No-Tobacco and No Areca Nut in its ingredients. **KEYWORDS:** Areca Nut, Tobacco, Cancer, Patient, Oral.

### I INTRODUCTION

The areca nut is the seed of the areca palm (Areca catechu L. Family: Palmaceae), that is usually utilized with betel leaves. The propensity for biting betel nut is thought to have started in South East Asia, most presumably in Malaysia. The areca tree is broadly developed in tropical India, Bangladesh, Japan, Sri Lanka, South China, the East Indies, the Philippines and parts of Africa. The tropical palm trees prove to be fruitful throughout the year. The nut might be utilized new, dried, or relieved by bubbling, preparing, or cooking. Betel nut's restorative use is restricted, and long haul negative responses to betel quid biting are notable. Numerous South Asian ladies from provincial

regions consistently bite betel quid, a blend of areca nut, betel leaf and lime glue with tobacco leaf. The quid changes the teeth to turn dark earthy colored and stain the tongue and oral mucosa. A new report of the National Cancer Registry Program (ICMR) showed an expanding frequency of cancer of the buccal mucosa ('mouth cancer') for six to ten years up to 2009 or 2010 out of five of the nine populace based cancer libraries (NCDIR-NCRP, 2013), emphasized by a comparative pattern in a solitary library. The cancer libraries situated in Bhopal, Mumbai, Delhi, Dibrugarh and Ahmedabad country and metropolitan, in the states or domain of Madhya Pradesh, Maharashtra, Delhi Union Territory, Assam and Gujarat, individually have high

pervasiveness of high areca nut use. It is assessed that 10% to 20% of the total populace bites betel quid. A combination of betel quid, areca nut and tobacco biting or snuffing is perilous for oral health. In country India, the utilization of betel nut with betel leaf is a typical practice. It contains a few restoratively dynamic substances. Tobacco utilization has fallen significantly in the course of recent years in many industrialized nations because of expanding consciousness of the risks of tobacco use and the execution of forceful and effective tobacco control arrangements. Conversely, throughout a similar time-frame, tobacco utilization has been expanding in the creating scene; non-industrial countries currently devour the best portion of the world's cigarette creation. Similarly as worldwide tobacco utilization is moving among industrialized and non-industrial nations, the tobacco pandemic is spreading to ladies in an assortment of settings. Verifiably, smoking by ladies in industrialized nations expanded during the only remaining century, falling behind the ascent in men by around 20 to 30 years. This ascent among ladies can be ascribed to debilitating social, social, and political limitations, combined with ladies' procuring power and focused on promoting by tobacco organizations. Today, the predominance of smoking among ladies in certain nations stays high, while reconnaissance information from different nations give cautioning of expanding use among youth, especially young ladies. Tobacco is extricated from around 65 known types of the tobacco plant of which the one that is developed financially and broadly as a wellspring of tobacco is *Nicotiana tabacum*. The vast majority of the tobacco from Northern India and Afghanistan comes from the species *Nicotiana rustica*. The developing utilization of tobacco is a reason for incredible worry around the planet because of its genuine effects on health. Non-transferable illnesses (NCDs) like ischemic heart sicknesses, cancers, diabetes, constant respiratory infections are the main sources of death internationally and related with tobacco use. Accessible information from WHO show that 38 million individuals pass on every year from NCDs, of which almost 85% of NCD passing happen in low-and center pay nations. As indicated by WHO insights for 2010 in India, NCDs are assessed to represent 53%, everything being equal. Of these passing, cardiovascular infections and diabetes are the most widely recognized

reasons for passing in India. This immense weight of NCDs can be credited to expanding utilization of tobacco. Tobacco is a significant danger factor for various sicknesses influencing all age gatherings. WHO information shows that tobacco utilizes execute almost 6,000,000 individuals in a year. Around 5,000,000 of those passing are the consequence of direct tobacco use while more than 600,000 are the aftereffect of non-smokers being presented to recycled smoke. One individual kicks the bucket like clockwork because of tobacco. Up to half of flow clients will in the long run pass on of a tobacco-related infection. The circumstance is similarly awful in India with assessed number of tobacco clients being 274.9 million where 163.7 million clients of just smokeless tobacco, 68.9 million just smokers and 42.3 million clients of both smoking and smokeless tobacco according to Global Adult Tobacco Survey India (GATS). It implies around 35% of grown-ups (47.9% guys and 20.3% females) in India use tobacco in some structure or the other. Utilization of smokeless tobacco is more pervasive in India (21%).

Most tobacco use starts in early immaturity—practically all first use happens before the time of 18.42 in many nations, barely any individuals begin smoking after the age of 21; nonetheless, in certain nations, for example, China, commonness is low during youthfulness and increments during early adulthood. In a 1996 public overview in China, the normal age at inception of tobacco use was 19 for men and 25 for women. Many variables have been accounted for to influence commencement. These components vary among industrialized and agricultural nations and among different gatherings inside a country. The majority of the accessible proof comes from the industrialized world, yet where conceivable, we feature agent concentrates from agricultural nations. The improvement of tobacco use is affected by a perplexing interaction of individual, social, and social components which can change after some time and phase of advancement and may shift in effect on young ladies and boys. Personal variables incorporate character type and attributes that may incline people to hazard taking conduct. Social impacts incorporate the conduct and mentalities of the person's social encouraging group of people, including companions, family, and friends. Social impacts establish the more extensive ecological setting with respect to normal practices and adequacy in

networks, neighborhoods, and countries. Here, we talk about a portion of the relational and natural determinants that may impact inception of tobacco use among young people.

## II HEALTH HAZARDS OF ARECA NUTS

Epidemiologic investigations of oral cancer show solid relationship with the utilization of betel nut, liquor, tobacco and cigarette smoking. In Taiwan, roughly 85% of oral cancer patients routinely use betel nut. The utilization propensities for these substances may just be related with the beginning phases of oral cancer improvement, while the later phases of cancer movement might be all the more firmly connected with other outside components. Biting areca nut is thought to have focal sensory system animating effect and alongside this it is known to have salivary invigorating and stomach related properties. Alongside the useful effects of areca nut one of its most harmful effects on the human body as a rule and oral depression; specifically is the advancement of possibly dangerous turmoil called Oral Sub mucous Fibrosis. The alkaloid and flavonoid substance of the areca nut assumes a vital part in the significant occasions that happen in pathogenesis of OSF which has a high capability of tuning into threat. Along these lines, need to advance the mindfulness with respect to the oral health because of utilization of areca nut and its business items. Albeit the pathogenesis of infection is believed to be multi-factorial, biting of betel quid or areca nut has been perceived as perhaps the main danger factors for OSF. The overall effects of biting areca nut have a lot of effect on the oral hole as well as on the overall health of a person. Be that as it may, numerous multiple times, the harmful effects can exceed the overall effects to an enormous degree when it turns into a propensity. Biting betel quid with areca nut as one of its segments has been related with oral mucosal injuries like oral sub mucous fibrosis and oral leukoplakia, which has the potential for harmful change. Disregarding monitoring danger of having numerous health issues, a significant extent of respondents were utilizing betel quid, areca nut, tobacco and liquor. The expanding utilization of tobacco with areca nut has assumed a huge part in the expanded rate of unfriendly health effects in numerous nations of the Western Pacific Region. Additionally, the areca-nut can be connected with an expanded rate of cancer. Like tobacco, biting the areca-nut additionally prompts oral

and oropharyngeal cancers. Betel Nut (BN) or Areca Nut (AN) biting propensities all alone or with different fixings including biting tobacco are exceptionally predominant in numerous South East Asian nations. The significant alkaloid arecoline in the BN has been discovered to cancer-causing and to be related with a scope of health hazards, remembering negative effects for pregnancy prevent. Pregnancy forces weight on folate stores as a result of expanded necessities for development of maternal tissues, embryo, and placenta. Folate insufficiency during pregnancy is a significant general health worry as is related with numerous unfavorable health results including neural cylinder surrenders, low birth weight, preterm birth, and postponed development of the sensory system, development hindrance, and megaloblastic weakness. A few polyphenols in betel nut have been demonstrated to be genotoxic most likely by development of Reactive Oxygen Species (ROS) in the chewer's salivation. ROS causes oxidative pressure or oxidative debasement where the cell can't balance. ROS can cause numerous harmful effects, for example, oxidative and chromosomal harm of DNA, which could be associated with a few phases of the cancer-causing measure in oral mucosa. A few investigations found that utilization of betel nut was related with thiamine insufficiency, exasperated effects of nutrient D deficiency<sup>40</sup> and was related with focal corpulence, hyperglycemia, diabetes mellitus cirrhosis and goiter. Different investigations have shown that betel nut use during pregnancy has antagonistic effect on birth results, including low birth weight, more limited birth length, and preterm conveyance. Harmful effects of BN have been seen in exploratory examinations on human incipient organisms and pregnant ladies.

### 2.1 Effect on the nervous system

The effects of areca nut are fundamentally on the focal and the autonomic sensory systems because of the alkaloid arecoline, which has parasympathomimetic properties animating both muscarinic and nicotinic receptors. Routine clients guarantee elation, a feeling of prosperity, warmth, expanded readiness, salivation, palpitation, antimigraine and improved capacity to work. Areca nut use is related with a reliance disorder, which involves expanded focus, gentle elation, unwinding, postprandial fulfillment and a withdrawal condition related with sleep deprivation, temperament

swings, crabbiness and nervousness, the seriousness of which can be contrasted and that of amphetamine use. Areca nut prompts palpitation, expanded circulatory strain, and expanded internal heat level, flushing and perspiring not long after utilization. Huge easing back of planned assessment of time stretches is noted with abatement in decision response time, however with no effect on straightforward response time. As opposed to the prevalent view, there is no huge effect on memory and fixation is really diminished. An investigation including recording of EEG of 52 subjects when areca nut utilization showed that areca nut utilization caused an  $\alpha$  and  $\beta$  action to increment with diminished  $\theta$  action. The progressions in  $\alpha$  movement are seen more in the occipital area, with more worldwide changes in  $\beta$  and  $\theta$  action, which is steady with a state of excitement and some level of unwinding. There is no proof to propose that handling of visual data is encouraged by areca nut, however some fringe incitement may happen. Creature considers show that there is hindrance by areca nut of the catalyst iNOS, prompting diminished protein extravasation from the vessels, which clarifies its enemy of headache use by town people in India. Arecoline, arecaidine, guvacine and guvacoline cause restraint of neurosuppressive movement of gammaaminobutyric corrosive (GABA) by hindering the receptors and repressing the take-up consequently adding to the euphoric effect and making an individual impervious to benzodiazapines and inclining to seizures. The schizophrenic clients of areca nut show a lessening in both negative and positive manifestations and dodge other harmful sporting medications and may have serious extrapyramidal indications on hefty utilization due to arecoline, which has an adversarial activity to procycladine (an enemy of cholinergic). Arecoline in focuses over 50  $\mu$ M has been appeared to causeneuronal injury by causing an expansion in oxidative pressure and concealment of the counter oxidant arrangement of the sensory system, and, at higher fixations, may cause cell demise.

### III HEALTH EFFECTS OF TOBACCO

Proof of the harmful effects of tobacco has existed for a very long time, from the outset corresponding to oral cancer and afterward to vascular illness and cellular breakdown in the lungs. This proof was for the most part disregarded, however interest surfaced following

the distribution in 1950 of 5 case-control contemplates relating smoking to cellular breakdown in the lungs. After a long quiet, genuine impulse was given to tobacco as a health issue almost forty years back, started by the primary report of the US Surgeon General in 1964. After twenty years the American Thoracic Society gave a position statement which investigated the health effects of smoking, considering logical information and agreement assessment. From that point forward our insight has extraordinarily extended and significant logical proof has been distributed archiving the ramifications of tobacco use as well as of tobacco openness for bleakness and mortality. While recognition ought to be paid to the people and associations who scatter information about and increment familiarity with the health effects of tobacco use and openness, the oddity is that the individuals who are very much educated about the pernicious effects of tobacco, for example health experts, are not dedicated enough in the battle against this worldwide plague. Tobacco is burned-through in a wide range of ways. Confirmed by epidemiologic just as test considers, the health risks of tobacco are these days a significant health concern worldwide in industrialized nations as well as in low-pay nations where the tobacco cost disturbs the weight of communicable sicknesses. In this paper we will underline the basic highlights of tobacco use, whatever the sort of tobacco utilized. We will at that point sketch momentarily the health effects of smokeless tobacco and afterward the primary health effects of both dynamic and aloof smoking. Tobacco is additionally connected with cancer of respiratory lot, lung, upper gastrointestinal parcel, liver, pancreas, kidney, urinary bladder, oral pit, nasal cavity, and cervix; and so on Smokeless tobacco (bites tobacco, snuff and so forth) is a significant reason for cancer of the oral depression. Stroke is vascular sickness of the cerebrum where tobacco causes either contract of veins or crack prompting loss of cognizance and loss of motion. Tobacco influences coronary vessels of the heart driving abatement of blood supply or demise of heart muscles which is known as ischemic or coronary illness. This thus causes heart failure. Smoking acts synergistically with other danger factors like elevated cholesterol and pulse to expand the danger of Coronary Heart Diseases (CHD).



## IV TOBACCO CONTROL POLICIES IN INDIA

### 4.1 Legislation

The Government of India ordered different enactments to control tobacco use. As of late the public authority ordered the Cigarettes and Other tobacco items (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act in 2003. The Act is material to all items containing tobacco in any structure for example cigarettes, stogies, bidis, gutka, pan masala, khaini, snuff and so on The demonstration has following areas:

Section 4: Boycotts Smoking in all "public spots like Hotels eateries, cafés, pubs, bars, air terminal lounges, and other such places visited by the overall population, working environments, shopping centers, film Halls, instructive foundations and libraries, clinics and amphitheater, open theater, delight focuses, arena, rail route station, transport stop and so forth.

Section 5: It precludes ad, promotion and sponsorship of all tobacco items; both immediate and circuitous commercial of tobacco items is restricted altogether types of sound, visual and print media. It forces all out restriction on supporting of any game and social occasions by cigarette and other tobacco item companies.

Section 6 (a): Prohibits sale of tobacco to minors (persons under the age of 18).

Section 6 (b): Denies offer of tobacco items close to educational establishments. Offer of any tobacco item is precluded in a territory inside sweep of 100 yards of any educational organization

Section 7: Its calls for indicated health notice marks on all tobacco items.

Section 7 (5): Each tobacco bundle should have nicotine and tar substance alongside most extreme reasonable permissible points. Determined admonition ought to be there portrayed on tobacco bundle.

### 4.2 Tobacco Free Initiative in India

One significant activity under this is setting up of Tobacco Cessation Clinics in India. During 2001-02, 13 Tobacco Cessation Clinics were set-up in 12 states the nation over in settings, for example, cancer therapy emergency clinics, mental clinics, clinical schools, NGOs and so on clients to stop tobacco use. Public

Guidelines for Treatment of Tobacco Dependence have likewise been created and scattered by the Government in 2011, to encourage preparing of health experts in tobacco cessation.<sup>8</sup> Various intercessions and exploration contemplates were additionally upheld to create local area based tobacco discontinuance models.

### 4.3 National Tobacco Control Program

The National Tobacco Control Program was dispatched by Ministry of Health and Family Welfare, Government of India in 2007-08 to achieve more prominent mindfulness about the harmful effects of tobacco use and tobacco Control Laws just as to encourage effective execution of the tobacco Control Laws. The National Tobacco Control Cell (NTCC) is answerable for in general strategy definition, arranging, observing and assessment of the various exercises. Public level public mindfulness/broad communications lobbies for mindfulness building and behavioral change are wanted to be completed.

## V. INDIAN STATE BANS TOBACCO BASED CHEWING PRODUCTS

In a significant enemy of tobacco move, the state legislature of Maharashtra has prohibited the deal, show, assembling, and circulation of gutka and paan masala, two exceptionally well known chewable tobacco based items. Despite the fact that one kind of Paan masala doesn't contain tobacco, it contains betel nut, which is likewise a cancer-causing agent.

The state of Maharashtra, which covers Mumbai, has 40 assembling plants for gutka and paan masala. "The restriction will get effective from 1 August 2002, and violators will confront tough punishments," Chief Minister Vilasrao Deshmukh told a news gathering after a bureau meeting in Mumbai on 17 July. The main priest alluded to a study by the Indian Dental Association, which found that 10%-40% of school understudies and 70% of understudies in universities in Mumbai bite gutka and paan masala. Implementing the boycott for a very long time would cost the state exchequer a yearly income of 250 million rupees.

With this choice Maharashtra joins different states, for example, Tamil Nadu, Kerala, Andhra Pradesh, Goa, and Gujarat in forbidding the items. "The choice of the Maharashtra government to boycott gutka is an extremely welcome and empowering step in controlling

oral tobacco use in India, and the WHO invites this move," Dr Varghese Cherian, public expert official for non-transferable infections at the WHO in New Delhi, told the BMJ. "Global correlations show that Indian cancer vaults have probably the most noteworthy rates for oral cancer," said Dr Cherian. Oral cancer bests the rundown of cancers among men in India and is third among ladies. In 2000 there were 49 632 instances of cancer of the oral depression and 29 054 passing's among men, as per the International Agency for Research on Cancer. The long term commonness was determined as 119 713 cases. Among ladies there were 29 364 cases and 17 222 passing's, and the long term predominance was 72 770. "Tobacco items in appealing sachets are quick supplanting customary types of biting the betel leaf with the wide range of various fixings," Dr Cherian said. The utilization of tobacco items by kids and young people, if unchecked, will prompt a significant weight of oral precancerous conditions like submucous fibrosis and oral cancer, and evasion of this propensity can lessen the occurrence of oral cancer in India, he added.

Gutkha and paan masala, two oral items utilized with or without tobacco, were restricted from 1 August 2002 in Maharashtra state, where even school and understudies are progressively turning out to be clients. The boycott covers the assembling, stockpiling, appropriation, deal, and promoting. A 1997 study in the capital Mumbai (once known as Bombay) found that 10–40% of younger students and 70% of undergrads utilized the items. Maybe the most fascinating parts of the move concern how it was made. To begin with, no new law has been passed: the boycott was settled on after a state Cabinet choice, by just giving a request under "empowering" enactment, the Prevention of Food Adulteration Act. Second, it is broadly reputed that Mr Sharad Pawar, head of the decision ideological group, was analyzed and treated for oral cancer due to gutkha utilize only a couple days before the Cabinet choice. Many are farfetched about the likely effectiveness of the Maharashtra boycott, as there are not many authorities to authorize it and at present clients and illicit brokers can cross into adjoining Madhya Pradesh or Gujarat states to get it. What's more, a prohibition on the offer of gutkha inside 100 meters of instructive establishments and government possessed workplaces in Mumbai has not been implemented. Nonetheless, the

net is fixing, with Madhya Pradesh and Uttar Pradesh passing their own, comparative boycotts, and the Rajasthan bureau has chosen on a basic level to boycott gutkha. Moreover, the high courts in Tamil Nadu and Andhra Pradesh have additionally requested boycotts, albeit for each situation, usage has been remained by the Supreme Court on procedural grounds. Oral tobacco is assessed to cause more than 160 000 new oral cancer cases in India consistently.

### **Chewing addiction of Indians**

Indians are traditionally fond of chewing anything into their mouth, more of tradition it's an addiction now. There are several things they adopt to chew regularly. Pan Masala chewing is majorly amongst them, which leads them into the mouth of deadly spiral from which can severely gets trapped and lose their lives. India is taking up the charge on saving lives of peoples losing their life due to tobacco based diseases. Leaving addiction instantly is tough hence, substitutes and replacements of Pan masala chewing which contains fatal elements such as areca nut, tobacco, Catechu, Betel nut etc. which can lead a human body to severe end. A brand Happy Life in India has come up with the revolutionary Herbal Pan Masala Mukhwas which is world's first ever herbal blend to substitute the habits of chewing tobacco, kattha (catechu) and areca nut. This Pan Masala mukhwas is a perfect replacement of getting rid of cancerous causing chewing materials like tobacco mixed pan masala, Traditional kattha , areca nut. This Herbal Chew of Happy life Pan Mukhwas is available on Amazon.in. Following the recent Government Rules and Regulations this product doesn't contains Tobacco and Areca nut. Even as per the recent guidelines of WHO, Areca nut is also unhygienic. This Pan Masala is approved by world's largest online selling platform in the category of Mukhwas i.e. Mouth freshener as it has no banned contents such as Tobacco and Areca nut.

### **VI CONCLUSION**

The areca nut is the seed of the areca palm (Areca catechu L. Family: Palmaceae), that is ordinarily utilized with betel leaves. The propensity for biting betel nut is thought to have started in South East Asia, most likely in Malaysia. The areca tree is broadly developed in tropical India, Bangladesh, Japan, Sri Lanka, South China, the East Indies, the Philippines and parts of Africa. Tobacco is separated from around 65

known types of the tobacco plant of which the one that is developed economically and generally as a wellspring of tobacco is *Nicotiana tobaccum*. The greater part of the tobacco from Northern India and Afghanistan comes from the species *Nicotiana rustica*. The developing utilization of tobacco is a reason for incredible worry around the planet because of its genuine effects on health. Gutkha and paan masala, two oral items utilized with or without tobacco, were prohibited from 1 August 2002 in Maharashtra state, where even school and understudies are progressively turning out to be clients. The boycott covers the production, stockpiling, conveyance, deal, and publicizing. The choice of the Maharashtra government to boycott gutka is a greeting and empowering step in controlling oral tobacco use in India, and the WHO invites this move," Dr Varghese Cherian, public expert official for non-transferable sicknesses at the WHO in New Delhi, told the BMJ.

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