

CHEMICAL TOOTHPASTE CAUSES CANCER

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ABSTRACT

This research paper is to spread awareness regarding the harmful ingredients present in chemical toothpastes. Chemical toothpastes contain toxic and carcinogenic chemicals like Sodium Fluoride (NaF), Sodium Lauryl Sulphate ($\text{NaC}_{12}\text{H}_{25}\text{SO}_4$), Hydrated Silica ($\text{SiO}_2.n\text{H}_2\text{O}$) and FD&C Colour Dyes. It has adverse and fatal effects on humans especially on children below six years. This paper also helps people realise the importance of ayurvedic remedies for mouth sanitation. People should make use of natural remedies like neem sticks and proven ayurvedic techniques and toothpastes for mouth sanitation .

Keywords: *Carcinogenic, chemical, FD&C Dyes, Hydrated Silica, Neem Sticks, Sodium Fluoride, Sodium Lauryl Sulphate.*

I. INTRODUCTION

Use of chemical toothpastes is a severe problem now a days. It contains carcinogenic chemicals like Sodium Fluorides, Sodium Lauryl Sulphates, FD&C Dyes and Hydrated Silica. They contain small molecules that may penetrate through the lining of the mouth, enter blood streams, and accumulate in liver, kidney, heart, lungs and even tissues. Ayurvedic toothpastes do not contain such toxic chemicals but contain natural ingredients such as neem, babul, tomar, pudina, cloves, bakul and turmeric. People should be aware regarding the uses of such natural herbs and ingredients and switch back to natural remedies for mouth sanitation.

II. HEADINGS

CHEMICAL TOOTHPASTES

2.1 Introduction

Chemical Toothpastes contain many harmful chemicals which are as follows

2.1.1 Sodium Fluoride

Though chemical toothpaste brands use fluorides as a key ingredient in toothpastes, it is harmful to humans especially children. The box contains a caution stating children below six years should use toothpastes under adult supervision and get medical help right away if swallowed. Toothpastes have adverse effects on children and even a small quantity of ingestion can cause health problems like nausea, vomiting, diarrhoea, and epigastric pain. When consumed in large quantity it can cause paralysis, cardiac arrest and respiratory problems.

Sodium Fluoride is also a key ingredient in rat poison and cockroach pesticides. It is also used as anesthetic, psychiatric and hypnotic drug. Sodium Fluorides can hamper the mood and behaviour of humans as it was used to pollute the drinking water by Nazis during the Second World War. Moreover, Fluorides have never been approved by Food and Drug Administration (FDA) America. It also leads to allergies and cancer which claims 10,000 deaths every year.

2.1.2 FD&C Dyes

These dyes can cause asthma attacks, allergies, headaches, nausea, fatigue, nervousness and lack of concentration. FD & C Blue Dyes 1&2 are synthesised from petroleum. Initially these dyes were made from coal tar oil which was directly obtained from coal but now a days it is synthetically engineered. These dyes are readily absorbed by the skin lining of the mouth which can lead to flow of these carcinogens in blood streams.

2.1.3 Sodium Lauryl Sulphate (SLS)

Sodium Lauryl Sulphate causes foaming of toothpaste. It is found to be corrosive and harmful to skin tissue according to the American Society of Toxicity. Sodium Lauryl Sulphate is also used in garage floor cleaners, engine degreasers and car wash soaps. It also causes irritation of skin. According to the American Society of Toxicity SLS can penetrate through tissues and cause long term effects. Sodium lauryl sulphate is also used in shampoos which causes cataract in human eyes.

2.1.4 Hydrated Silica

Hydrated Silica causes scratching of the surface of the teeth. It also harms the enamel and prevents remineralization of teeth which is caused by ionic calcium and phosphorous found in saliva.

AYURVEDIC TOOTHPASTES

2.2 Introduction

Ayurvedic toothpaste are free from toxic chemicals but contain ayurvedic ingredients which have several benefits. The ingredients used in ayurvedic toothpastes is as follows

2.2.1 Neem (Azadirachta indica)

Neem kills bacteria, tartar and plaque that commonly builds up in teeth and gums. Regular use of neem ensures clean, healthy and white teeth. Plaque can cause cavities, gingivitis and tooth decay. Neem can be used to make neem toothbrushes instead of pastes which can prevent all the dental disorders

2.2.2 Babul (Acacia Arabica)

Babul extracts help in fighting germs and making teeth strong. It also helps in maintaining oral health hygiene to keep dental problems away.

2.2.3 Tomar (Xanthoxylum alatum)

It is traditionally used to get relief from tooth ache. It also has numbing effect on teeth and gums.

2.2.4 Pudina (Mentha Spicata)

It improves oral health as it has antibacterial and anti-inflammatory properties which helps get rid of harmful bacteria and prevent dental ailments. It also freshens the breath and inhibits the growth of bacteria in mouth. It is found to naturally whiten teeth.

2.2.5 Vajradanti (*Barleria prionitis*)

It strengthens teeth naturally and provides hardness to teeth.

2.2.6 Akarkara (*Anacyclus pyrethrum*)

It has been used as a medicine since centuries.

2.2.7 Cloves (*Syzygium aromaticum*)

Cloves oil contains eugenol is effective for tooth ache . It acts as a ulcer healer and stops bleeding from gums.

2.2.8 Turmeric (*Curcuma longa*)

It is used as an antiseptic and it is found to heal wounds.

III. FIGURES AND TABLES

3.1 Contents present in an ayurvedic toothpastes per 10g

Akarkara	<i>Anacyclus pyrethrum</i>	20mg
Neem	<i>Azadirachta indica</i>	10mg
Babul	<i>Acacia Arabica</i>	20mg
Tomar	<i>Xanthoxylum alatum</i>	20mg
Pudina	<i>Mentha Spicata</i>	10mg
Cloves	<i>Syzygium aromaticum</i>	10mg
Pipli	<i>Piper sylvaticum</i>	10mg
Vajradanti	<i>Barleria prionitis</i>	10mg
Bakul	<i>Mimusops elengi</i>	10mg
Vidang	<i>Embelia ribes</i>	10mg
Turmeric	<i>Curcuma longa</i>	10mg
Meswak	<i>Salvadora persica</i>	10mg
Majufal	<i>Quercus infectoria</i>	5mg

V. CONCLUSION

This is a proposed work and a potential topic for future research. Ayurvedic toothpastes have an upper edge on chemical toothpastes. All the ingredients used are naturally obtained though negligible quantity of chemicals may be present. All these above mentioned ingredients are found to be beneficial for teeth since ancient times.

Scientists should promote the use of these natural methods with appropriate evidence which would prove beneficial even for the future generations. Neem sticks have been used in India since decades and the results are always positive. Neem sticks are also easily and cheaply available.

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