

Mask Mouth Syndrome

Vijayasree. V. Nair¹ ; Ajith KK²

1,2 Assistant Professors, BGSB University, Rajouri.
Jammu and Kashmir, India.

Abstract:-

➤ *Background:* -

Among the human population, social contacts are a key for transmission of bacteria and viruses. The use of face masks seems to be critical to prevent the transmission of SARS-CoV-2 for the period, in which therapeutic interventions are lacking.¹ Every time we say a single phrase, we release hundreds of respiratory droplets that can be transmitted several feet away. These tiny droplets are almost impossible to track and therefore it is too difficult to tell who is infected or not.² Masks help prevent the spread of infectious diseases — like the Covid-19 virus — protecting both you and those you come in contact with. The simple barrier helps stop respiratory droplets from traveling into the air and onto other people when a person wearing the mask coughs, sneezes, talks, or raises their voice. However, wearing a mask for an extended period can create unwanted side effects, such as mask mouth. The Centers for Disease Control and Prevention (CDC) recommends wearing a mask in public settings, and studies show masks play a crucial role in slowing the virus's spread, so getting rid of this protective measure is not the answer. Instead, learn all about mask mouth — what it is, what causes it, and how you can prevent it — so you can find relief.³

➤ *Materials and Methods:*

The article mainly focused on Mouth mask syndrome, its causes, symptoms and preventive methods of Mask mouth syndrome.

Key Words:- Mask Mouth Syndrome.

I. INTRODUCTION

Recently, respiratory disease experts advocated in a medical journal that the use of traditional cloth coverings such as dupatta and saree, towels, turban and even the handkerchief as face cover. Communities could be taught to use these to cover their mouth and nose when they cough or sneeze and when they are in places such as markets, community gatherings where social distancing may be impractical. The wearing of masks or any face cover could provide a barrier for transmission to and from the user. However, cloth mask would serve the purpose better as it is a specifically designed cover. Since April 14 2020, face masks have become mandatory for public places and in public transportation in India.³

The simple barrier helps stop respiratory droplets from traveling into the air and onto other people when a person wearing mask coughs, sneezes, talks, or raises their voice. However, wearing a mask for an extended period can create unwanted side effects, such as mask mouth.⁴ Discomfort apart, the prolonged use of masks comes with a plethora of problems, ranging from bad breath to dry mouth and headache. A little care by the user can go a long way in getting rid of these issues, says expert.⁴

While facemasks are the new normal in public places and while interacting with others, many who need to wear them for eight-ten hours daily, complain of bad breath and dry mouth. These oral issues are now being termed collectively as 'Mask Mouth Syndrome', and over 20 per cent of the public deal with such issues.⁵

A recent study was conducted to assess the various deleterious effects caused by the protracted use of mouth mask in the oral cavity among the general population. The study was conducted among 400 individuals. The survey was titled as "Assessment of precautionary measures during COVID-19 pandemic" so as to obtain unbiased results. Questions asked regarding the opinion on the mask as a precautionary measure, mask wearing habit and the changes if any as observed by the individual after the use of mouth mask and the results were statistically analysed. The result showed that the most common complaint was difficulty in breathing as experienced by (62.3%) followed by dry mouth (37.9%), halitosis (34.7%), and bleeding gums (2%). In addition to the above mentioned 33.4% people have noticed a decrease in the amount of water intake (dehydration) after wearing the mask. The study helped in creating awareness among those participated in the community survey about their mask wearing habits, types of masks available and the most common errors caused by them unintentionally, was an eye opener for people who were unaware regarding the etiology of the symptoms.⁶

➤ *Purpose*

- To ensure optimal face mask use.
- To make aware about the Mask mouth syndrome.
- To enhance the knowledge of public about Mask mouth syndrome.

II. WHAT IS MASK MOUTH?

Mask mouth describes the variety of oral side effects from wearing a mask for an extended time. Mask mouth might include dry mouth, bad breath, tooth decay, and even gum disease.⁵

When you wear a face mask it increases the dryness in your mouth. This is a perfect breeding ground for bacteria and viruses to grow. Your body produces saliva to create a protective barrier. There are also antimicrobial components that are produced to fight the bacteria. Saliva also plays an important part in preventing viruses from entering directly into our bodies.³

A recent study done online found that 16% percentage of people dealt with bad breath, while 22 percentage experienced dry mouth. As many as 514 people responded to the questionnaire. The researcher felt that had the number of participants been more, the percentage might have been higher.⁶

III. WHAT CAUSES THIS PROBLEM?

Dental professionals attribute these side effects to a few factors:

- **Disrupted breathing patterns.** A study conducted by PN Medical shows how wearing a mask can impact your breathing, causing more rapid, shallow breaths using your mouth, chest, and neck instead of your diaphragm. Breathing out of your mouth decreases the amount of saliva, which plays an important role in your oral health — washing away food debris and defending your teeth from cavities.
- **Dehydration.** Wearing a mask also causes you to drink less water than usual. Dehydration can lead to dry mouth, increasing your risk of tooth decay and bad breath.
- **Recycling air.** When you wear a mask, you trap more carbon dioxide in your mouth than usual, according to Aerosol and Air Quality Research. This amount of carbon dioxide does not have a toxicological effect on your body. However, it can increase your oral microbiome acidity, which might put you at risk for infections or inflammatory conditions like gum disease.⁵

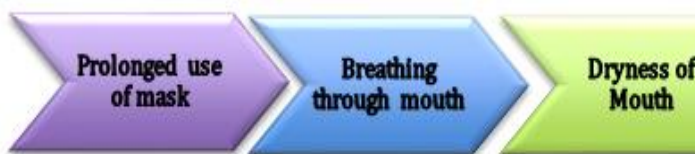


Fig 1: How does mask mouth occur?

The data in figure 01 shows the way how a mask mouth syndrome occurs. A prolonged use of mask can lead to breathing through mouth which results in dryness of mouth. As a dry mouth persists for a longer period, it can cause halitosis, gingivitis, ulcers and dental caries etc, ultimately resulting in Mask mouth syndrome.

IV. WHAT ARE MASK MOUTH SYMPTOMS?

The severity of mask mouth symptoms varies for each person, but the condition most commonly presents itself as:

- **Dry mouth.** Xerostomia, or dry mouth, occurs when you don't have enough saliva to keep your mouth moist. Not only does dry mouth make it difficult to eat, swallow,

and speak, but it also increases your chance of developing tooth decay and other oral infections.

- **Bad breath.** What you eat, your oral hygiene habits and dry mouth can all cause halitosis, more commonly known as bad breath. Prolonged mask-wearing can intensify dry mouth, but it also traps the stench caused by poor oral hygiene or eating smelly foods like garlic and onions.
- **Bleeding gums.** If you notice your gums are swollen or bleeding, it could be a sign of gingivitis. Wearing a mask may impact the type and amount of bacteria in your mouth, which can cause plaque and advance that to your gum tissues.⁵

V. HOW CAN YOU PREVENT MASK MOUTH?

Even if you experience some of these symptoms, keep wearing your mask. Wearing your mask slows the spread of the virus and helps protect the vulnerable in your community. Instead, implement some of these preventative measures:

- **Focus on your care routine:** - Brush your teeth for two minutes twice a day and clean between your teeth with floss or other interdental devices once a day. Make sure you use the proper brushing technique to clean all your mouth's nooks and crannies.
- **Freshen up between cleanings:** - Keep a mouthwash on hand to freshen your breath and fight bacteria between cleanings. Ask the dental professional to recommend a mouthwash that does not exacerbate dry mouth. Chewing sugar-free gum can also help remove food debris and fix bad breath.
- **Keep an eye on tooth and gum health:** - Because mask mouth increases your chances of infection, watch out for sensitive teeth and gums. If you notice any discoloration, pain, bleeding, or tenderness, see your dentist as soon as you safely can for treatment.
- **Stay hydrated:** - Drink water throughout the day to help prevent dry mouth. It might also help to limit alcohol and coffee consumption, which can cause dehydration.
- **Use a clean mask.** Regularly replace or clean your mask to prevent bacterial growth. The Centres of Disease Control and prevention recommends washing your mask daily or throwing your mask out after each wear.
- **Avoid short term fixes:** - Bad breath is one of the most noticeable symptoms of mask mouth, and so it's easy to think that merely making your breath smell better will fix the problem. However, short-term solutions, such as breath mints and mouthwash, can do more harm than good.
- **Include fibre and Vitamin C rich food in diet:** - Keeping oneself hydrated and including fibre-rich food, rather than processed food, in the daily diet is the best way to keep these issues at bay.
- **Reduce the amount of time spend wearing a mask:** - That means going out less, avoiding contact with other people who aren't members of your household, and working from home if possible. When you don't have to wear your mask, take it off and breathe in the fresh air to refresh your mouth.

- **Contact a health professional:** - If you notice any oral complications from extended mask use, contact your dentist immediately. Similarly, if your mask causes skin issues, talk to your dermatologist.^{5,7}

VI. CONCLUSION

The rules about wearing a mask vary. However, in general, you should try to wear a mask as much as possible when out in public to protect the most vulnerable members of your local community and to make sure that you are healthy.

Mask mouth might create an inconvenience, but it's easy to address with the right tools. Plus, the price of paying extra attention to your oral care is worth protecting your neighbours and friends from the Covid-19 virus. So, mask up and keep up with your oral hygiene!⁵

ACKNOWLEDGEMENT

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