Consequences of Washing Hands To Protect Against Coronavirus (COVID-19)

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Abstract

Background: Respiratory viruses like coronavirus disease (COVID-19) spread when mucus or droplets containing the virus get into your body through your eyes, nose or throat. Most often, this happens through your hands. Hands also are one among the foremost common ways in which the virus spreads from one person to subsequent. During a worldwide pandemic, one among the most cost-effective, easiest, and most vital ways to stop the spread of an epidemic is to scrub your hands frequently with soap and water1. But there may be mild to moderate skin reactions related to hand hygiene.

Objective: To find out the consequences of repeated washing of hands to protect against coronavirus (COVID-19).

Methods: 106 candidates were asked by questionnaire to fill 20 different questions related to time, duration, frequency and consequences of hand wash they are feeling.

Result: The result of this study supports that 56% of people who are washing their hands at least 25-100 times a day are suffering from skin dryness.

Conclusion: study suggests that repeated or frequent washing of hands can cause dryness and crack skin of hands even in individuals with no history of skin diseases

Keywords: Novel Corona Virus 2019, repetitive, handwashing, COVID 19, skin reaction, hygiene, Stress Exposure, Social Isolation and Quarantine.

Introduction

Respiratory viruses like coronavirus disease (COVID-19) spread when droplets containing the virus get into your body through your eyes, nose or throat. Most often, this happens through your hands. Hands also are one among the foremost common ways in which the virus spreads from one person to subsequent. During a worldwide pandemic, one among the most cost-effective, easiest, and most vital ways to stop the spread of an epidemic is to scrub your hands frequently with soap and water.1

There are two major sorts of skin reactions related to hand hygiene. The first and commonest type includes symptoms which will vary from quite mild to debilitating, including dryness, irritation, itching, and even cracking and bleeding. This array of symptoms is mentioned as irritant dermatitis. The second kind of skin reaction, allergic dermatitis, is rare and represents an allergy to some ingredient during a hand hygiene product. Symptoms of allergic dermatitis also can range from mild and localized to severe and generalized. In
its most serious form, allergic dermatitis could also be related to respiratory distress and other symptoms of anaphylaxis. Therefore, it is sometimes difficult to differentiate between the two conditions.²

Hand hygiene products damage the skin by causing denaturation of corneum proteins, changes in intercellular lipids (either depletion or reorganization of lipid moieties), decreased corneocyte cohesion and decreased stratum corneum water-binding capacity.³⁴ Among these, the main concern is the depletion of the lipid barrier that may be consequent to contact with lipid-emulsifying detergents and lipid-dissolving alcohols.⁵ Frequent handwashing results in the progressive depletion of surface lipids with occurring deeper action of detergents into the superficial skin layers. During dry seasons and in individuals with dry skin, this lipid depletion occurs more quickly. Damage to the skin also changes skin flora, resulting in more frequent colonization by staphylococci and Gram-negative bacilli.⁶⁷

Although alcohols are safer than detergents,⁸ they can cause dryness and skin irritation.⁹¹⁰ The lipid-dissolving effect of alcohols is intended relevant to their concentration, and ethanol tends to be less irritating than n-propanol or isopropanol.¹⁰ Numerous reports confirm that alcohol-based formulations are well tolerated and often associated with better acceptability and tolerance than other hand hygiene products,¹¹,¹² that’s why it is advisable to use alcohol-based hand rubs only during this pandemic by a coronavirus.

### Method

In this study, the form was sent randomly to 106 people and was asked to fill answers of 20 items.

The questionnaire covered demographic data and questions regarding awareness of preventive measures of coronavirus, mode of transmission of coronavirus, regular washing of hands, frequency of hand wash, steps of hand wash, awareness of when to wash hands, feeling of tightness, itching, cracking and dryness after washing, sensitive skin type, application of moisturizer after washing etc.

Then forms were reviewed carefully. Data processing and analysis were done with Microsoft Excel 2007. Pie chart analyses were used to test for statistical correlation.

### Result

The result of this study supports reveals that people who are washing their hands at least 25-100 times a day, 56% are suffering from hand dryness. At last, we also found that 99% of the population were awarded and take serious covid 19.

![Image](https://example.com/image.png)

**Figure 1:** It shows the percentage of people how many times washing their hand in day. 43% people washing their hand 5-10 times a day, 49% people washing their hand 25 times/day, 5% people washing their hand 75 times/day, 3% washing their hand 100/day.
Figure 2: It shows the result of dryness due to excessive hand-washing number of people who are washing their hand 25-100 times a day.

Treatment: to avoid dryness at night is the best sign to resting your hand apply moisturizer before going to sleep is the best way to avoid dryness.

Conflict of interest: There were no conflicts of interest in this study.

Ethical Clearance: Patient consent was taken.

Source of Funding: Self.

References
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