



## Innovations

# Surgical pearl: A simple cost-effective modification in face mask to minimize fogging of specs (goggles)

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Received : 15 January 2023

Accepted : 21 January 2023

Published : 10 February 2023

**DOI**

10.25259/CSDM\_19\_2023

**Quick Response Code:**

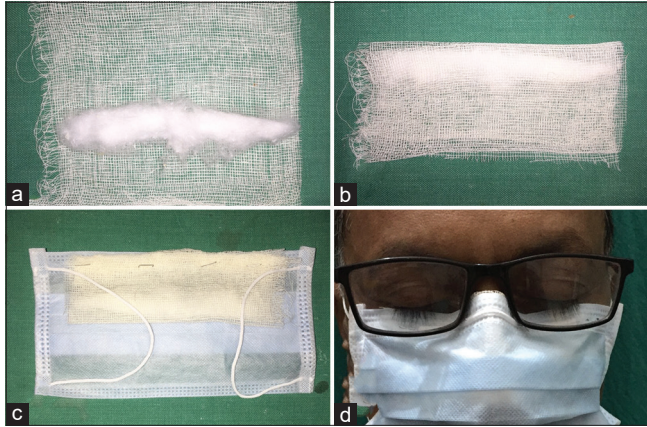


## PROBLEM

Face masks with specs or goggles are now essential for medical personnel as a preventive measure after the outbreak of COVID-19. However, the mask causes fogging of the specs (Goggles), which affect the vision and create uneasiness in doing routine medical work. The fogging is due to expiratory breath air vapor which come out on specs from nasal part of the mask. Tissue paper and adhesive paper tape have been used to make the specs less foggy.<sup>[1-3]</sup> However, the tissue paper and adhesive tapes soak less breath air vapor due to sweating and leads to its leakage and fogging of specs. In addition, the tapes are irritating, cause dryness, and abrasions on the bridge of nose. The hydrocolloid sheet or patch is expensive and not feasible to use it as a routine.<sup>[4]</sup> Moreover, there are adjustment problems in frequently putting on and putting off masks in long duty hours, because tapes and sheets are not properly fixed with mask. Here, simple, cost-effective, and fixed modifications has been done in the mask for minimizing the fog on specs.

## SOLUTION

For this, we need cotton balls, gauze, and staplers, which are readily available in the clinic. First of all, a 4–6-layered rectangular strip (6 × 2 inches) of cotton gauze is made and cut. Following this, a flat cotton (or tissue) sheet is made from cotton ball (or tissue paper) and wrapped in the layer of the gauze strip. Then, the strip is stapled at inner surface of superior border (nasal border) of mask (7 × 4 inches). After this, the mask is ready to put on with specs to get proper fitting on nose [Figure 1a-d]. In the case of allergy to metal clips, which is less likely, a small piece of tape can be pasted on each metal clip stapled on the mask. Thus, this modified, customised mask is inexpensive, easy to procure, and efficient to prevent fogging on specs even in moist weather and environments. This mask causes less pressure and irritation on the nose. There is no problem of adjustment in wearing this mask, as used to happen due to adhesive



**Figure 1:** (a-d) The different steps of modification in the surgical mask for better absorption of breath air vapors using gauze strip, and cotton ball sheet for making specs (goggles) fog free.

tapes, layer of gauze piece, and hydrocolloid sheets during long-duty hours.

#### Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

#### Financial support and sponsorship

Nil.

#### Conflicts of interest

There are no conflicts of interest.

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**How to cite this article:** Mukhtar M, Kumawat K. Surgical pearl: A simple cost-effective modification in face mask to minimize fogging of specs (goggles). *CosmoDerma* 2023;3:27.