

How I Do It

SECTION EDITOR



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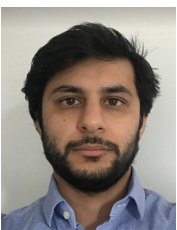
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Face shield modification in ENT during COVID-19 pandemic

BY MINA MEKHAIL AND FARRUKH MOHAMMAD

ONLINE
EXCLUSIVE

The COVID pandemic has caused a huge disruption to our lives, not least at work where safety restrictions and the widespread implementation of PPE have led to some challenges to carrying out routine ENT work. In this article, the authors describe a novel way of adapting a face shield to allow the ongoing safe use of our headlights.



Surgical ENT procedures require the use of a variety of tools in order to successfully and accurately provide the best patient care. The headlamp, although basic in concept, provides the surgeon with appropriate illumination of the operating field in order to maximise visibility. The headlamp is a crucial tool used during complex procedures where visibility highly impacts accuracy – procedures including (and not limited to) septoplasties, lumpectomies, tonsillectomies, and adenoidectomies require the use of headlamps.

Due to the current COVID-19 pandemic, the use of personal protective equipment (PPE), such as face masks and eye protection, has become standard practice in hospitals worldwide. The implementation of this PPE has caused several challenges for

ENT surgeons. The primary issue that ENT surgeons face is visibility, especially peripheral vision, limited by the goggles used for eye protection. These standard goggles also limit visibility due to the significant fog created by the underlying N95, which forces exhaled hot air from the surgeon's nose and mouth to accumulate within the goggles and cause moisture buildup throughout the visual field. Surgeon comfort is also limited due to the numerous straps that overlap one another and rest on the ears of the doctor. This places excess pressure on the head and neck of the surgeon, causing restriction in movement, as well as a need for frequent breaks and/or rushed procedures.

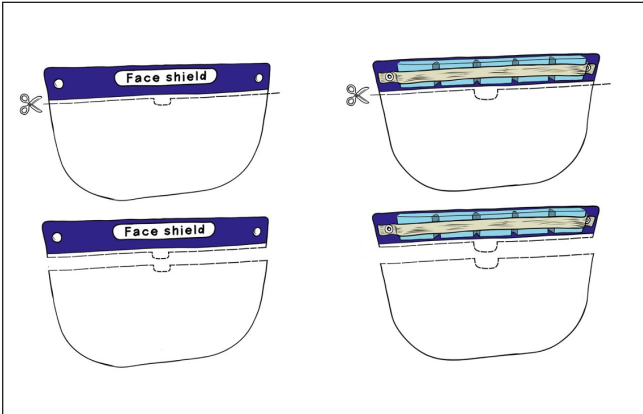
We propose the use of a modified face shield as a solution to the current issues experienced in operating theaters during

complex procedures when PPE and headlamps are required simultaneously. A standard face shield is cut along the horizontal border. The strapless portion of the face shield is then affixed to the headlamp by creating holes that align with the existing

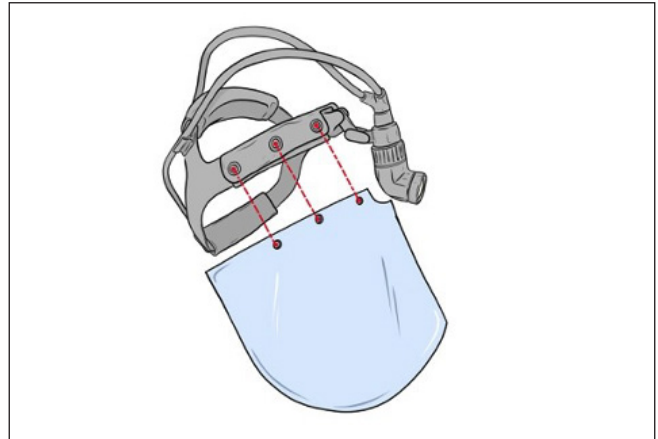
headlamp cushion buttons. This cost-effective solution eliminates the need for goggles and improves the surgeon's visual field, while providing the appropriate protections against COVID-19 transmission.

How to make a headlamp face shield

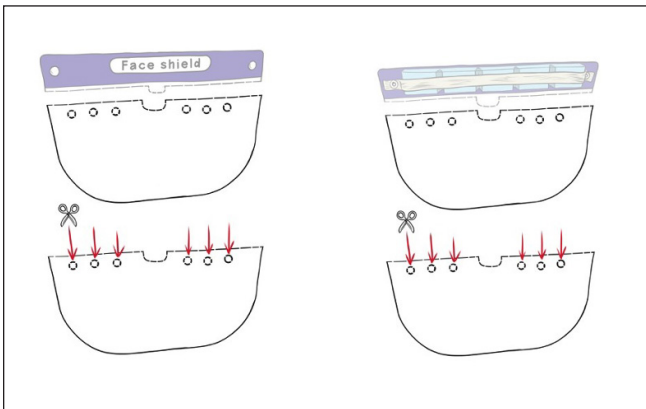
Step 1: Cut along the horizontal line of a standard face shield to remove the forehead cushion and elastic band.



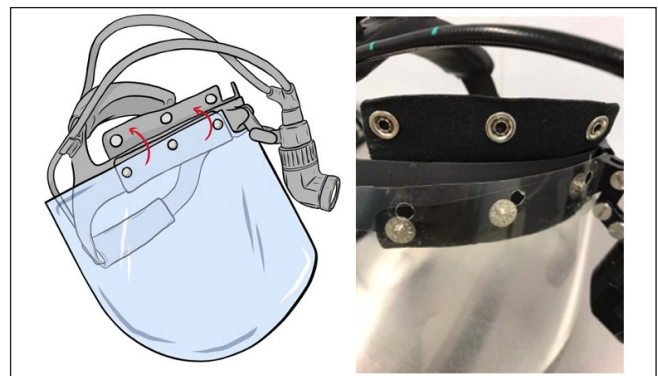
Step 2: Align the face shield with the headlamp.



Step 3: Hole punch the top border of the face shield corresponding to the existing buttons on the headlamp.



Step 4: Unbutton the headlamp and superimpose the face shield so that the holes created in Step 3 fit over the headlamp buttons.



Step 5: Re-button the headlamp.

