CLINICAL MICROBIOLOGY AND RESEARCH |

| Type of Mask | Filtering Capacity and Protection | Author, year |
|------------------------------|---|---|
| Professional N95 Respirators | -Removes 95% of the smallest droplets | Asadi et al., 2020 [19]; Bartoszko et al., 2020 |
| | -It fits around the nose and mouth with a strong seal, so air and | [20]; Gralton & McLaws, 2010 [21]; John |
| | viral particles will not get around the side of the respirator. | Hopkins, 2020 [43]; |
| | | MacIntryre & Chughtai, 2020 [44]; |
| | | NIH, 2020 [5] |
| Procedural and Surgical | -Seal around the nose and the mouth, meaning smaller droplets | Asadi et al., 2020 [19]; Bartoszko et al., 2020 |
| Masks | can still be inhaled. | [20]; Gralton & McLaws, 2010 [21]; John |
| | -Surgical masks are useful for shielding the nose and mouth from | Hopkins, 2020 [43]; |
| | larger droplets from coughs or sneezes and for preventing the | Fink, 2020 [45]; |
| | transmission of droplets by infected individuals. | MacIntryre & Chughtai, 2020 [44]; |
| | -Around 60% of the tiny inhaled particles can be filtered out by | NIH, 2020 [5] |
| | surgical face masks. They are mainly meant to avoid droplets, | |
| | sprays and splatters. | |
| Cloth masks with filter | -Some big droplets are removed by homemade cloth masks but | Asadi et al., 2020 [19]; John Hopkins, 2020 [43]; |
| | provide little protection against aerosols. | Felter, 2020 [36]; |
| | -They do not have a seal around the nose and mouth, and face | Fink, 2020 [45]; |
| | shields are unlikely to increase their effectiveness. Cloth masks | Ghandhi, 2020 [29]; Rengasamy, Eimer & |
| | worn by infected individuals can decrease the spread of droplets | Shaffer, 2010 [28] |
| | if surgical masks are not available. | |
| | -Filtration can be improved by 35% to almost 70% by applying a | |
| | polypropylene filter to a two-layer cloth mask. | |
| | - Results highlight the importance of regular changing of | |
| | disposable masks and washing of homemade masks. | |
| Cloth or Paper Mask | -Single-layer masks can only provide 1 percent filtration of | Asadi et al., 2020 [19]; John Hopkins, 2020 [43]; |
| | particles. Around 35 percent of the small particles are filtered by | Fink, 2020 [45]; |
| | a two-face | Ghandhi, 2020 [29]; Rengasamy, Eimer & |
| | masks will minimise droplet spray. | Shaffer, 2010 [28] |
| | -A homemade cloth face mask 's efficacy depends largely on its | |
| | construction. Thickly woven cotton fabrics, such as quilting | |
| | cotton. Single-layer cloth masks, which could be less efficient | |
| | than triple-layer masks, are less efficient than double-layer | |
| | masks. | |
| | - While the efficacy of cloth and paper masks is not as clear and | |
| | confounded by shedding of mask fibers, it is likely that they | |
| | provide some reductions in emitted large expiratory particles | |
| | (> 0.5 | |
| | -Results highlight the importance of regular changing of | |
| | disposable masks and washing of homemade masks. | |
| Cone style masks | -Cone-style face masks are less functional than cloth face masks. | Fink, 2020 [45] |
| | It is made of quilting cotton to accommodate droplets and spray. | |
| | -Bandanas are more effective the cone-style masks. | |

certification (e.g., N-95 respirators); ii) medical masks that are not authorised as a controlled medical product (e.g., loose fitting disposable medical masks), and iii) homemade single-layer masks whose consistency cannot be guaranteed. Table 1 provides a summary of major findings based on type of masks worn, filtering capacity and protection offered.

While the efficacy of cloth and paper masks is not as clear and confounded by shedding of mask fibers, it is likely that they provide -21,

28]. It is noteworthy that filtration can