

## Standards on the Use of Face Masks or Visors/Face Shields in the Community for decreasing COVID-19 Transmission

This document provides guidance for the general public on the use of face masks and visors/face shields in communities where local transmission of COVID-19 is reported.

### Mandatory use of face masks and visors/face shields

IN EXERCISE of the powers conferred by articles 26 and 27(c) of the Public Health Act, the Minister responsible for public health, after consultation with the Superintendent of Public Health (Legal Notices 326 and 327 of 2020), has made the following regulations:-

Any person who is:

- inside retail outlets;
- travelling on public transport;
- travelling between Malta and Gozo including in the respective Ċirkewwa and Imġarr terminals;
- within the terminal building of the Malta International Airport; and
- within the terminal building for passengers travelling by catamaran or by cruise liners,

shall at all times wear a visor or medical or cloth mask.

The Mandatory Use of Medical or Cloth Masks (Amendment No. 2) Regulations (LN 335 of 2020) introduces the compulsory wearing of visors or medical or cloth masks when 'obtaining a service or visiting indoor public places'. This would include places such as the following:

- persons going into government departments/Ministries/public sector entities, persons attending the court building, hospitals, health centres, educational establishments,
- lobby and common areas in hotels; guest houses, common areas in restaurants when not seated at table,
- persons visiting indoor museums; libraries; indoor art exhibitions,
- persons visiting banks and financial institutions.

Any person who fails to abide by the provisions of these regulations shall be guilty of an offence and shall, on conviction, be liable to the payment of a penalty of hundred euros (€100) for each and every instance in which these regulations are breached:

Provided that if the offence is admitted and the penalty is paid before proceedings are commenced before the Commissioner for Justice, the penalty applicable shall be reduced to fifty euro (€50).

**The use of facemasks is also recommended in private cars when driver and passengers do not belong to the same household.**

## How does COVID-19 spread?

Current information suggests that the two main routes of transmission of the COVID-19 virus are respiratory droplets and physical contact with contaminated surfaces. Respiratory droplets are generated when an infected person coughs or sneezes, and possibly also through breathing and speaking. The heavier droplets tend to fall to the ground rapidly within a 1 m radius. This is why any person who is in such close contact with someone with respiratory symptoms (coughing, sneezing) is at a high risk of being exposed to potentially infective respiratory droplets. This also explains the need to maintain 'physical distancing' and keep a distance of at least at 2 metres between people. Droplets may also land on surfaces (such as doorknobs, lift buttons or counters) where the virus could remain viable and could be picked up. Therefore, the immediate environment of an infected individual can serve as a source of transmission (contact transmission). There is ongoing scientific debate around the role of the smallest and lightest virus particles. These can float in the air for a long time and be present in closed spaces, even after the infected person has left the environment.

The incubation period for COVID-19, which is the time between exposure to the virus and the start of symptoms, is around 5-6 days, but can be as short as 2 days and as long as 14 days. During this period, also known as the "pre-symptomatic" period, some infected persons with mild or no symptoms, can be contagious and therefore transmit the virus to others (ECDC, 2020). This is supported by data that suggests that some people can test positive for the COVID-19 virus from 1-3 days before they develop symptoms (WHO 2020).

## Public Health advice regarding masks

Public Health Authorities are advising individuals who are not ill to wear a face mask or visor when entering closed spaces. Customers and staff in retail outlets, banks, in port terminals, on Gozo ferry and on public transport are required to wear a mask or a visor. Visors can be worn alone or together with a mask. Persons visiting banks are advised to wear a visor, since masks may not be permitted for security reasons. It is the responsibility of employers to provide appropriate masks or visors for their workers.

The use of face masks helps reduce the spread of infection in the community by limiting the spread of infection from infected individuals who may not know they are infected, who have not yet developed symptoms or who remain asymptomatic. The wearing of masks will therefore enhance the effects of physical distancing. It is important to note that face covers are not meant to be a replacement for physical distancing; observing cough and sneeze etiquette; maintaining meticulous hand hygiene and avoiding touching one's face. Wearing of masks or visors is required in addition to these measures, which should always be maintained.

## Types of Masks

### Surgical face Masks



A 'surgical' face mask is a flat or cup-like medical device is affixed to the head with straps and tightly covers the mouth, nose and chin. This creates a barrier that limits the spread of infection between a health care worker and a patient. Surgical masks are often used by healthcare workers to prevent large respiratory droplets and splashes from reaching the mouth and the nose of the wearer. They also help reduce and control the spread of large respiratory droplets from the person wearing the face mask, and limit environmental contamination. These masks are quality tested according to a set of standardized test methods that ensure high filtration, breathability and resistance to fluid penetration. The coloured side of the mask should be worn on the outside.

### Respirators



This document does not focus on respirators or filtering face pieces (FFP), since these should *only* be used by health care workers (ECDC 2020). In addition to FFP masks, health workers working in high-risk clinical areas also wear other protective equipment including visors, goggles and aprons or suits, since in addition to entering through the nose and mouth, the virus can also penetrate the human body through the eyes (conjunctivae).

## Non-Medical Face Masks



Non-medical face masks (or 'community' masks) include various forms of self-made or commercial masks or face covers. These may be made of tightly woven, breathable cloth such as cotton, other textiles or other materials such as paper. They are not intended for use in healthcare settings or by healthcare professionals. Fabric masks may capture large respiratory droplets, like those from a cough or a sneeze. Those made of different types of cloth have a wide-ranging ability to filter virus-sized particles, with a trade-off between filtration and ability to breathe according to the number and types of layers used. A number of materials have been found to be good filters, with pillowcase and T-shirt material made of 100% cotton found to be the most suitable household material for cloth masks. Three or four layers should be used. The better the masks fits, the more effective it is. Various patterns and instructions on how to make your own masks may be accessed online (e.g. CDC website).

### Appropriate use of face masks

The proper use of ANY mask (including home-made masks) is imperative. Failing to put on or remove your mask safely may lead to an **increased** probability of getting infected with COVID-19.

Regardless of how well they work, the success of cloth or surgical masks at protecting others depends on whether people in the community wear them properly, keep them in place, and make sure the mask doesn't get too wet. **Non-medical face masks prevent viral particles from potentially being spread by the mask wearer. They do not protect the mask wearer from being infected if someone who is positive for COVID19 transmits respiratory droplets onto the person wearing the mask.**

Studies indicate that accumulated moisture, such as from breathing, can trap the virus in a mask and make it a strong source of contamination when the wearer takes it off. This is why it is very important that masks are removed for disposal or storage until washing/sterilisation for re-use. Used masks must not be stored in pockets or left lying about on surfaces.

**Wearing a face mask may create a false sense of security and may result in the neglect of other essential measures, such as hand hygiene practices and physical distancing. The appropriate use of face masks is essential for their effectiveness and safety.** Smoking should be avoided, especially when wearing a mask.

**It is important to note that:**

- N-95 respirators and surgical masks are critical supplies that must continue to be prioritised for use by healthcare workers.
- Cloth face masks should NOT be placed on young children under 3 years of age; anyone who has trouble breathing; or who is unconscious, incapacitated or otherwise unable to remove the mask without assistance. Masks should NOT be used when practicing strenuous or vigorous exercise. Masks or visors are only recommended to be worn if a sport which does not involve vigorous exercise is practiced in the vicinity of other people.
- Cloth face masks, after being removed safely, should be washed after each use in a washing machine using normal laundry detergent at 60°C. Cloth facemasks can be washed numerous times.
- Do not re-use single-use disposable masks.
- Some types of masks include a plastic one-way valve on the front that makes it easier to breathe. When you breathe in, the valve is closed, but when you breathe out, it opens to allow your exhalation to leave unfiltered, and that exhalation will include viruses if you have the virus and thus not protect those around you, negating the reason for using the mask in the first place. The use of these types of mask is therefore not recommended.

Persons with disability, Autism Spectrum Disorder (ASD) and Sensory Processing Disorder (SPD) may be exempt from mandatory wearing of masks on a case-by-case basis, depending on the individual's sensitivity. In particular, children on the autism spectrum have heightened sensory experiences and wearing a face mask over the mouth or the elastic pulling at the ears can cause distress and increased handling and contamination in this case could make mask wearing counter-productive. Not all individuals on the spectrum have the same triggers and many resources are available (social stories for example) which can prepare children with ASD/ SPD to wear a face mask (<https://www.autism.org/wp-content/uploads/2020/04/face-mask-social-story.pdf>). If the individual can tolerate it well and wear mask or visor appropriately, it should be encouraged. Otherwise, it is advisable that a medical certificate is kept at hand in case one were to be approached for enforcement reasons.

**The correct procedure to wear and remove a mask must be followed:**

- Before putting on a mask, clean your hands with soap and running water or an alcohol-based hand rub (minimum 70% alcohol).
- Cover your nose, mouth and chin with the mask.
- Avoid touching the mask while wearing it.
- Replace the mask with a new one after prolonged use, or as soon as it becomes damp.
- To remove the mask: bend your head forward, remove the mask from the straps (do not touch the front of mask); discard immediately in a closed bin (or into a washable fabric bag or a plastic bag in the case of cloth masks); and clean hands with soap and running water or alcohol-based hand rub.



## Proper use of face masks is key for their effectiveness and safety!



Make sure the face mask completely covers your face from the bridge of your nose down to your chin.



When taking off your face mask, remove it from behind. Be sure not to touch its front side.



Before putting the face mask on or off, clean your hands with soap and water or alcohol-based hand sanitiser.



If your face mask is disposable, dispose of it in a safe way.



**DO NOT TOUCH** your face or mask while in use.



If your mask is reusable, wash it as soon as possible after each use with a common detergent at 60°C.

## How to make your own fabric face mask

- ✓ Wash your hands carefully before you start making your face mask
- ✓ Pre-wash the fabric before making your face mask because fabrics can shrink in the wash.
- ✓ Your fabric face mask must cover your nose, mouth and chin
- ✓ Use tightly woven and breathable fabrics such as cotton which can be washed at 60°C
- ✓ Use 2 to 3 layers of fabric
- ✓ Use two different colours so you can easily see which is the inside of your mask and which is the outside.
- ✓ Avoid vertical seams in the middle of your mask.
- ✓ Your face masks can be sewn with elastic bands or fabric ties
- ✓ Store your face mask in a washable fabric bag



## Using a cloth face mask

Cloth face masks should:

- Fit snugly but comfortably against the side of the face.
- Be secured with ties or elastic loops around your ears.
- Include multiple layers (3 or 4) of tightly woven fabric.
- Allow for breathing without restriction.
- Withstand laundering and machine drying without damage or change to their shape.



## Should cloth face mask coverings be washed or otherwise cleaned regularly? How regularly?

- Yes. The materials the cloth masks are made of may limit the number of times they can be washed.

## How does one safely sterilise/clean a cloth face mask?

- Cloth face masks can be properly cleaned in a washing machine at 60°C using normal laundry detergent.

## How does one safely remove a used cloth face mask?

- Bend your head forward,
- Remove mask from behind (do not touch the front of mask);
- Store safely in a fabric bag, where possible, until able to wash both mask and bag;
- Clean hands with soap and running water or alcohol-based hand rub;
- Do not touch your eyes, nose, or mouth when removing your face mask,
- Clean your hands with soap and water or alcohol rub immediately after removing it.



## How does one dispose of a face mask?

Different germs can survive on a used mask for different periods of time. Viruses can survive for a few hours up to a few days on masks. Used single-use masks should be binned immediately after use. Always wash your hands before wearing and after taking off a mask.





**Masks that are not made out of cloth are single use and thus not reusable. They should be discarded after being used.**

**Masks should only be considered as a complementary measure to established preventive practices such as physical distancing, cough and sneeze etiquette, hand hygiene and avoiding touching one's face. They are *not* replacements for these practices.**

### Visors/Face shields, their use and care

Visors/Face shields are simple, transparent screens that cover the face and help prevent infectious droplets from entering the eyes, nose and mouth and should extend to below the chin. They can be worn separately or in conjunction with masks, but are the most effective when worn in conjunction with masks, blocking splashes and sprays from reaching the face and preventing people from touching their faces.



The advantage of visors/face shields is their durability, allowing them to be worn an indefinite number of times, the ability to easily clean them after use, their comfort, and that they may also prevent the wearer from touching their face. Importantly, visors/face shields create a relative cover for all the portals of entry for the virus: the eyes, the nose, and the mouth. They are available in various sizes, including for children- but should not be worn by children under 3 years of age.

Visors/face shields typically consist of two main parts: a transparent visor that covers the face and which is usually made of plastics such as polycarbonate, propionate, acetate, polyvinyl chloride (PVC), and polyethylene terephthalate glycol (PETG); and a method of holding the visor in place, such as a headband or strap.

The strap can be made of moulded plastic, 3D-printed plastic or even elastic. Some visors/face shields are designed to be thrown away after a single use while others can be disinfected and reused.

Although evidence on visors/face shields is limited, what is available suggests that the following face shields may provide better source control than others:

- Face shields that wrap around the sides of the wearer's face and extend below the chin.
- Hooded face shields.

**Visors/Face shields that do not cover all the face are not recommended since they do not provide adequate protection.**

Visor/Face shield wearers should wash their hands before and after removing the face shield and avoid touching their eyes, nose and mouth when removing it.

Visors/Face shields should ideally be the reusable type and should be disinfected appropriately at each use with alcohol wipes, disinfectant wipes, disinfectant spray or germicidal wipes. They then should be cleaned with soap and water and left to dry before the next use.

Disposable visors/ face shields may be used as long as they keep their shape and remain intact.

If your visor/ face shield breaks, it must be replaced.

#### References:

Centre for Disease Control (CDC) <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html> [accessed 10 August 2020].

Centre for Disease Control. Page last reviewed: March 17, 2020 National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/face-masks.html>. Accessed 13 April 2020.

Davies Anna, Thompson Katy Anne, Giri Karthika, Kafatos George, Walker Jimmy and Bennett Allan. Testing the Efficacy of Homemade Masks: Would They Protect in an Influenza Pandemic? Disaster Medicine and Public Health Preparedness, Available on CJO 2013 doi:10.1017/dmp.2013.43

European Centre for Disease Prevention and Control. Using face masks in the community - Reducing COVID-19 transmission from potentially asymptomatic or pre-symptomatic people through the use of face masks. Stockholm: ECDC; 2020: <https://www.ecdc.europa.eu/en/publications-data/using-face-masks-community-reducing-covid-19-transmission>

European Centre for Disease Prevention and Control (ECDC). Safe use of personal protective equipment in the treatment of infectious diseases of high consequence. Stockholm: ECDC; 2014. Available from:

<https://www.ecdc.europa.eu/sites/default/files/media/en/publications/Publications/safe-use-of-ppe.pdf>

Government of Belgium. Coronavirus COVID-19. Fabric face masks. I protect you, you protect me. <https://www.info-coronavirus.be/en/face-mask/> [accessed 02 May 2020]

Greenhalgh Trisha, Schmid Manuel B, Cypionka Thomas, Bassler Dirk, Gruer Laurence. Face masks for the public during the covid-19 crisis BMJ 2020

Lopalco Pier Luigi. Universita di Pisa. Coronavirus e mascherine: quante ne esistono, come funzionano e come usarle. 10 Aprile 2020 <https://www.medicalfacts.it/2020/04/10/coronavirus-le-mascherine-e-la-nuova-normalita/>

National Academies of Sciences, Engineering, and Medicine. 2020. Rapid Expert Consultation on the Effectiveness of Fabric Masks for the COVID-19 Pandemic (April 8, 2020). Washington, DC: The National Academies Press. <https://doi.org/10.17226/25776>.

National Institute for Occupational Safety and Health (NIOSH). Use of respirators and surgical masks for protection against healthcare hazards [internet]. Atlanta: CDC; 2018 [accessed 10 April 2020]. Available from: <https://www.cdc.gov/niosh/topics/healthcarehsp/respiratory.html>

Roberge R. J. (2016). Face shields for infection control: A review. Journal of Occupational and Environmental Hygiene, 13(4), 235–242. <https://doi.org/10.1080/15459624.2015.1095302>

University of Maryland. (2020, April 3). Wearing surgical masks in public could help slow COVID-19 pandemic's advance: Masks may limit the spread diseases including influenza, rhinoviruses and coronaviruses. Science Daily. Retrieved April 10, 2020 from [www.sciencedaily.com/releases/2020/04/200403132345.htm](http://www.sciencedaily.com/releases/2020/04/200403132345.htm)

WHO. Advice on the use of masks in the context of COVID-19 Interim guidance. 5 June 2020.



