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 or visors/face shields in communities where local transmission of COVID-19 is reported.

Mandatory use of medical or cloth face masks or 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, 327, 335 and 402 of 2020), has made the following regulations:

Any person shall, outside his residence, both when going to an indoor place and outdoors, wear a medical or cloth mask or visor in a proper manner covering the nose, mouth and chin of the person.

The mandatory use of medical or cloth masks or visors shall not apply to private homes or private vehicles.

The following individuals shall be exempt from the requirement to wear a face mask:

(a) children up to three (3) years of age; and
(b) persons with severe cognitive, physical, mental or respiratory impairments who have difficulties tolerating a mask as certified by a licensed medical practitioner, in which case such individuals shall at all times carry the relevant medical certificate exempting them from wearing a mask.

The temporary removal of facemasks shall be permissible in the following situations:

(a) in the case of children attending kindergarten, while in the classroom;
(b) during high intensity physical activity;
(c) when speaking or providing assistance to any individual who relies on lip reading to communicate;
(d) during official public speaking provided that a physical distance of at least two (2) meters between individuals is maintained:

Provided that the delivery of lessons or lectures in schools, universities or other education establishments shall not be construed as official public speaking;
(e) if requested to for identification purposes, including at banks, at the airport or seaport or by law enforcement officials;
(f) to receive any medical or cosmetic treatment or service involving the face or mouth;
(g) to take medication; or
(h) when seated at establishments where food and drink is served

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).

In addition to the above legal requirements and as a result of ongoing evidence of the effectiveness of masks in decreasing the spread of COVID-19, public health authorities also strongly recommend that a face covering is worn in private homes or in private vehicles when you are in the company of persons who do not form part of your household, although this is not a mandatory requirement.

**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 debate and press coverage around the role of the smaller aerosol particles and their role in spreading the virus further than 2 metres. These aerosols (unlike droplets) can float in the air for a long time and be present in closed spaces, even after the infected person has left the environment. However, other than in specific procedures normally undertaken in hospitals, the advice from WHO remains that aerosol transmission in the community is, at best, rare and only in exceptional situations within poorly ventilated indoor premises.

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**

It is now legally mandatory for all individuals to wear a face mask or visor whenever they leave their house, unless exempted as described in detail above. Where tolerated, a medical or cloth mask (or a mask together with a visor) is preferred to a visor alone. It is the responsibility of employers to provide appropriate masks or visors for their workers and to ensure that these are worn in an appropriate manner covering nose, mouth and chin.

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 a replacement for keeping physical distancing; observing cough and sneeze etiquette; maintaining meticulous hand*
hygiene and avoiding touching one’s face. Wearing of masks or visors is mandatory 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 or other textiles. They are not intended for use in healthcare settings or by healthcare professionals whilst performing their duties. 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. Please see below and Annex 1 for detailed guidance regarding considerations when making or purchasing cloth masks.

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 COVID-19 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. Also, if one is wearing a mask for many hours, it is important to have spare masks on hand so that a fresh mask can be put on whenever the previous mask becomes wet or soiled. Used masks must not be stored in pockets or left lying about on surfaces but should be placed in a sealable plastic pouch or wipeable container until they can be laundered or safely disposed of. Masks should never be shared.

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 must continue to be prioritised for use by healthcare workers. They are not recommended for use in the community.
- 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 during strenuous work and when practicing vigorous exercise. Masks or visors are to be worn if a sport does not involve vigorous exercise or 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. Increased handling and contamination in this case could make mask wearing counterproductive. 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 an individual can tolerate it well and wear mask or visor appropriately, it should be encouraged. Otherwise, a certificate by a licensed medical practitioner is to be kept at hand in case one is 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 (containing 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 wipeable sealed container, wipeable plastic pouch or a disposable plastic bag in the case of cloth masks); and clean hands with soap and running water or alcohol-based hand rub.

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 (ideally a minimum of 3) of tightly woven fabric.
- Allow for breathing without restriction.
- Withstand laundering and machine drying without damage or change to their shape.
- Be stored either in a non-porous sealable container (such as a lidded plastic box), a disposable plastic bag or a wipeable plastic pouch. Reusable containers/pouches should be wiped with 70-90% alcohol and left for a minute to dry after having had a used mask stored in them.
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. When the layers of a mask become visibly worn out or the mask remains stained or soiled after washing, it should be thrown away and replaced.

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 or soap. When laundering masks, use of fabric softener is not recommended. Do not use harsh chemicals such as disinfectants to clean your mask. Remember that the mask will be close to your face and breathing in such chemicals can cause harm. Similarly, cloth masks should not be dry-cleaned as the dry-cleaning process leaves residues in the fabric that are a hazard to health.

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. However, due to their design, they may allow respiratory droplets to exit or enter through the open gaps between the visor and the face. Since we do not yet have evidence that face shields are as effective as source control or protection from respiratory droplets as masks, we recommend that masks should be used in preference to visors (or in conjunction with them), while the use of visors alone is discouraged. However in certain situations where a mask is not practical or cannot be tolerated (e.g. children with special needs, certain health issues) visors can be used as an alternative to masks.

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 or disinfectant wipes or disinfectant spray or germicidal wipes or with soap and water. They then should be 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:**


CWA 17553: Community face coverings - Guide to minimum requirements, methods of testing and use. European Committee for Standardization, June 2020.


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


Annex 1 – Guidance on cloth masks

This guidance is issued jointly by the Superintendence of Public Health and the Malta Competition and Consumer Affairs Authority (MCCAA). It is intended to provide information for the general public when making or purchasing cloth masks.

Based on available evidence of what type of cloth masks are most effective, the World Health Organization recommends that cloth masks should be made up of three layers:

- An inner layer (layer which comes into direct contact with the face) made of a hydrophilic material that will absorb droplets from the wearer’s exhaled breath. An example of such a material is cotton, such as woven or knit cotton T-shirts, or a cotton blend. Light-coloured cottons are ideal as they make it easy to tell when the mask has become wet or soiled.
- A middle layer, which can be an insert or another fabric layer, made of a hydrophobic (water-repelling) material such as spun-bond non-woven polypropylene fabric (a waterproof synthetic material typically used as an outdoor fabric), or alternatively made of cotton.
- An outer layer made of hydrophobic material, meaning that it repels droplets and moisture. This can be a synthetic material such as polypropylene, polyester or a polyester/cotton blend.

While this is the combination of materials recommended for maximum filtration and breathability, other materials can also be used, including two layers of polypropylene or three or more layers or T-shirt cotton or polyester. However, silk, cotton gauze, handkerchiefs and nylon have been found not to provide sufficient filtration; their use in cloth masks is not recommended.

The weave of the fabrics chosen must be neither too loose, as this would allow droplets to escape, nor too tight, as this would make it difficult to breathe through the mask. You can quickly check the
breathability when making a mask by attempting to breathe through the material (through the same number of layers of fabric as will be in your mask). If making your own mask, select a fabric that is soft and flexible enough to take the shape of the wearer's face, allowing the mask to seal. Choose a smooth fabric that is not irritating to the skin and is not too warm, as your mask may otherwise be uncomfortable to wear. The material chosen should be able to withstand washing in hot water (60°C). Elastic materials are not recommended as stretch during wear may result in increased pore size and hence lower filtration efficiency. Elastic materials also tend not to withstand washing at higher temperatures. Coated fabrics (e.g. with wax) are also not recommended as the coating blocks the pores of the fabric and may make it harder to breathe through the mask. Vacuum cleaner bags, insulation material used in construction, nappies and fabrics that may have been treated with harmful chemicals are not suitable for use in cloth masks.

Cloth masks should have a head harness that keeps the mask in place over the nose, mouth and chin while it is being worn. This can be in the form of ear loops or it can go around the user's head, using either elastic material or a fabric tie. The head harness should keep the mask securely in place without being excessively tight or uncomfortable. Cloth masks for children should be made with ear loops NOT fabric ties. For a proper fit, the edges of the mask should not shift, e.g. when speaking, and allow air to escape through the edges of the mask instead of being filtered through it (as this makes the mask much less effective). Examples of mask shapes that fit closely over the facial contours are the flat-fold and duckbill mask shapes. Patterns for these mask shapes can be found easily online. Do not make vertical seams along the nose, mouth and chin when sewing your mask. Cloth masks should not include any sharp edges or points. Staples should not be used to hold parts of the mask together as this is a safety risk.

**IMPORTANT NOTE TO MANUFACTURERS**

Cloth masks, which are also known as cloth face coverings or community face coverings, are not classified as medical devices or as personal protective equipment. As such, cloth masks placed on the market are NOT regulated by Directive 93/42/CEE, Regulation EU/2017/745 or Regulation EU/2016/425 and do NOT require a mandatory conformity assessment involving notified bodies or laboratories.

It remains the producer's responsibility to ensure that their design is in accordance with accepted best practices and production quality control. The attention of manufacturers is drawn to the provisions contained in the CEN Workshop Agreement for Community face coverings – CWA17553 https://www.cenelec.eu/research/CWA/Documents/CWA17553_2020.pdf