

Annex 4 – Brief guide to the use of PPE and good practices for the containment of the risk of COVID-19 infection

Coronaviruses are a large family of viruses known to cause diseases ranging from the common cold to more serious diseases such as Severe Acute Respiratory Syndrome (SARS).

The new Coronavirus, called SARS-CoV-2 (previously 2019-nCoV), is a new coronavirus never identified before in humans.

The disease caused by the new SARS-CoV-2 is called "**COVID-19**" (where "CO" stands for corona, "VI" for virus, "D" for disease and "19" indicates the year in which it occurred).

Appropriate precautionary measures must be taken to prevent the spread of the virus and COVID-19 disease.



The **main anti-coronavirus measures** are:

- physical distancing, in terms of regularity/duration of contacts and distance between people;
- personal hygiene;
- cleaning of objects and surfaces.

Concerning the minimum distance between people, **at least 1.80 meters must be guaranteed in cases of co-presence at work, with the obligation also to wear a surgical mask**.

Situations of lesser distancing must be kept to a minimum and managed using specific protocols and additional PPE (double surgical mask or FFP2 type mask).

Finally, please note that in Tuscany **the use of disposable masks is mandatory outside the home** in the following situations:

- in public and private indoor spaces open to the public, in the presence of more than one person, as well as in local public transport, in non-scheduled taxi services and rental services with driver;
- in outdoor spaces, public or open to the public, when, in the presence of several people, maintaining social distancing is mandatory.

MASKS FOR THE PREVENTION OF INFECTION FROM RESPIRATORY VIRUSES

There are various types of masks, protective filtering ones (fig. 1) and surgical ones (fig. 2). Both PPE, i.e. personal protective equipment, the protective filtering masks (compliant with UNI EN 149: 2009 or EN 149: 2001 + A1) help protect the individual who wears them from a specific risk, for example, due to dangerous biological agents. Conversely, the latter (compliant with UNI EN 14683: 2019) are used, both in health and non-health contexts, to contain the possible spread of contagious diseases from saliva droplets.



Fig. 1



The use of a surgical mask curtails a large part of the so-called droplet of the person who wears it, i.e. droplets of saliva that are inevitably released into the environment by coughing, sneezing or even simply speaking, and which may contain the infectious agent if the person has been infected and has the virus in the upper airway (nose, mouth, and pharynx).

Fig. 2

Therefore the surgical mask performs an effective function of "collective protection".

For work/research activities where it is not possible to respect the interpersonal distance for longer than 15 minutes, the use of FFP2 masks is required; in this case, FFP2 / FFP3 masks without a filter are preferable; if only those with filter are available, you must also wear a surgical mask above. If the FFP2 masks are not available, it is sufficient to use two surgical masks simultaneously.

CORRECT USE OF MASKS

The use of masks poses some issues that must be known to avoid errors or improper use that can reduce or even invalidate their effectiveness.

- 1) **Masks, even if worn by everyone, do not guarantee absolute protection:** the risk of infection is not canceled but simply reduced.
- 2) Masks must be worn correctly, otherwise, their protective value is compromised: the colored part is on the outside; the elastic loops must be placed around each ear; the mask must cover mouth and nose; the underwire must be tight on the nose (Fig. 3).
- 3) When wearing a mask, it is good practice to limit speaking, especially if worn for several hours. When the mask becomes damp (due to coughing, repeated sneezing, excessive talking) its filtering capacity decreases and must be replaced.
- 4) When temporarily removing the mask, hold it by the elastic loops, avoiding touching the internal surface, which must be considered as a potential source of contagion. For the same reason, the mask must never be lowered around the neck.
- 5) The mask is disposable and must be discarded in the waste once used. Disposal must be performed as described in the "Protocol for resuming in-person activities at the IMT School for Advanced Studies Lucca".
- 6) When putting on or removing the mask, wash your hands thoroughly with soap and water or sanitize them with a suitable disinfectant, before touching any other object, garment, or surface.

BE CAREFUL

Surgical masks represent very useful tools but not the only measure available to contain the spread of SARS-CoV-2; respecting social distancing, frequent washing of hands, sanitation of surfaces in environments with multiple contacts represent priority measures, on which to focus our efforts and attention.

GLOVES: HOW TO WEAR AND REMOVE THEM

If the employer prescribes the use of gloves, follow the instructions below. Use **disposable nitrile gloves** that comply with **EN 374** regulations. Wash your hands thoroughly before putting them on. Latex gloves are not recommended as they can cause allergic reactions.

Regarding the risk of contagion from COVID-19, please remember that viruses are transmitted through human-to-human contagion, but they can resist on surfaces even for a few hours or days. Therefore, we must be careful to use gloves while respecting the correct procedures to wear and remove them (see Figure 4).

It is important to remember to remove the gloves properly without touching the external surface with your bare hand, not to jeopardize everything.

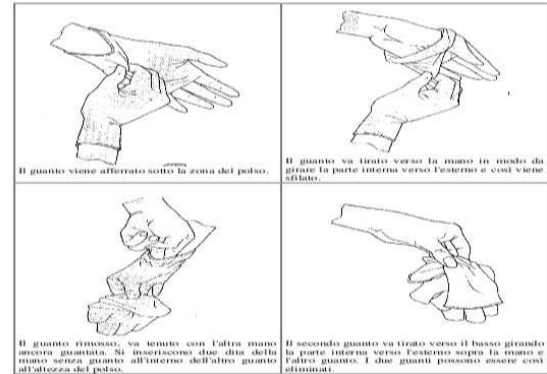


Fig. 4 - How to remove gloves.

Be careful
how you remove
your gloves!

OTHER PPE

For work/research activities where it is not possible to respect the minimum interpersonal distance, the use of eye protection devices such as glasses or visors is necessary.

SURFACE CLEANING

For cleaning and sanitizing, the provisions of the national and regional authorities are observed. At present, we refer to the "ISS COVID-19 Report no. 5/2020 - Interim indications for the prevention and management of indoor environments concerning the transmission of SARS-CoV-2 virus infection.

Version of 23 March 2020", unless otherwise provided for.

It is necessary to frequently clean all surfaces that can be contaminated, such as doors, handles, windows, glass, tables, light switches, toilets, taps, sinks, desks, chairs, passenger handles, keys, keyboards, remote controls, printers.

In offices, surfaces can be disinfected with a special spray or wipes.

In laboratories, it is recommended: 70% or 80 ° ethanol or 0.1% hypochlorite or special licensed virucidal products.

Cleaning must be performed at the beginning and end of each shift/work session of an employee at a given workstation.

WASTE

In regular work environments, such as **offices**, there are open baskets for unsorted waste, in which a plastic bag is placed and periodically replaced.

At the end of the working day, each employee is required to close the plastic bag containing the waste produced. Closing the bag reduces the exposure of the cleaning staff who will replace it every day to the risk of COVID-19.

For **laboratories** where there is already a biological risk, as indicated in the Risk Assessment Document, and where there are plastic containers for potentially infected biohazardous waste (preferably with a non-re-opening cap) (Fig. 10), these containers can be used for the disposal of disposable gloves, masks and other PPE used by all personnel during the COVID-19 emergency.





Containers for the disposal of such waste must display a fully visible adhesive label with the information related to the waste:

- Type of waste: Waste that must be collected and disposed of by applying particular precautions to avoid infections;
- EWC code: 180103 *;
- Hazard Class HP9 - infectious;

It is allowed to sanitize waste (gloves, masks, handkerchiefs, etc.), subject to the agreement with the Prevention and Protection Service. Prepare a well-washed regular 'spray bottle', fill it with a solution made up of 1 part of (regular) bleach and 2 parts of water. If the bleach contains 3.5% active chlorine, the ratio can also be 1: 1.

Beware of bleach: causes severe skin burns and eye damage.

OBLIGATIONS AND SANCTIONS

The IMT School monitors compliance with the precautionary measures and good practices for the containment of the COVID-19 risk of contagion, through individuals specifically appointed for this purpose.

In particular, individuals not equipped with appropriate PPE will be denied access to the School's premises and facilities (e.g. canteen, library, classrooms, laboratories, etc.).

CONCLUSION

This short guide does not purport to be exhaustive, but only to provide useful information to managers, research managers, supervisors and employees who work in the research laboratories of the IMT School for Advanced Studies Lucca during the COVID-19 emergency.

SPP – Rev. of 13 May 2020