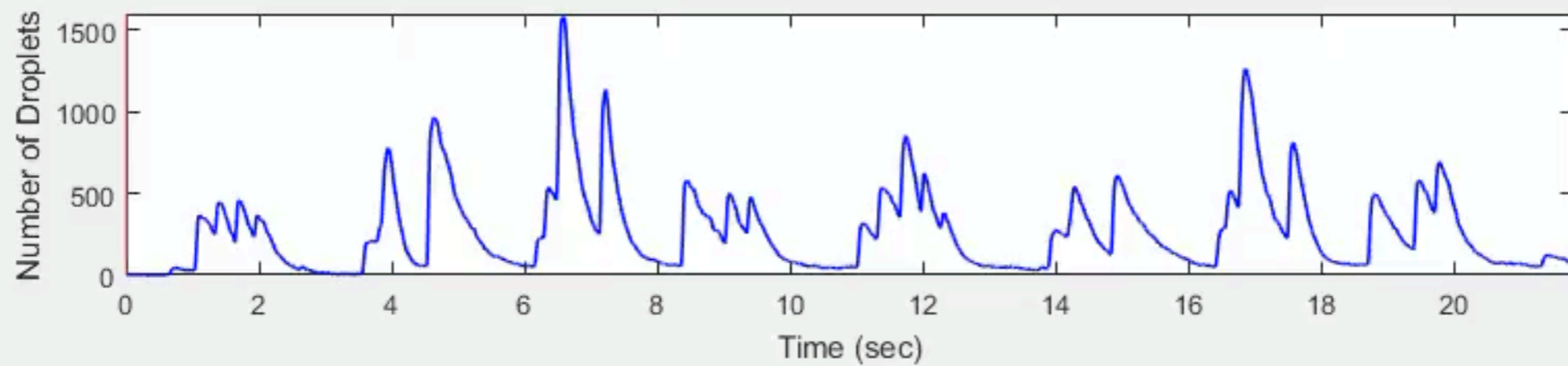


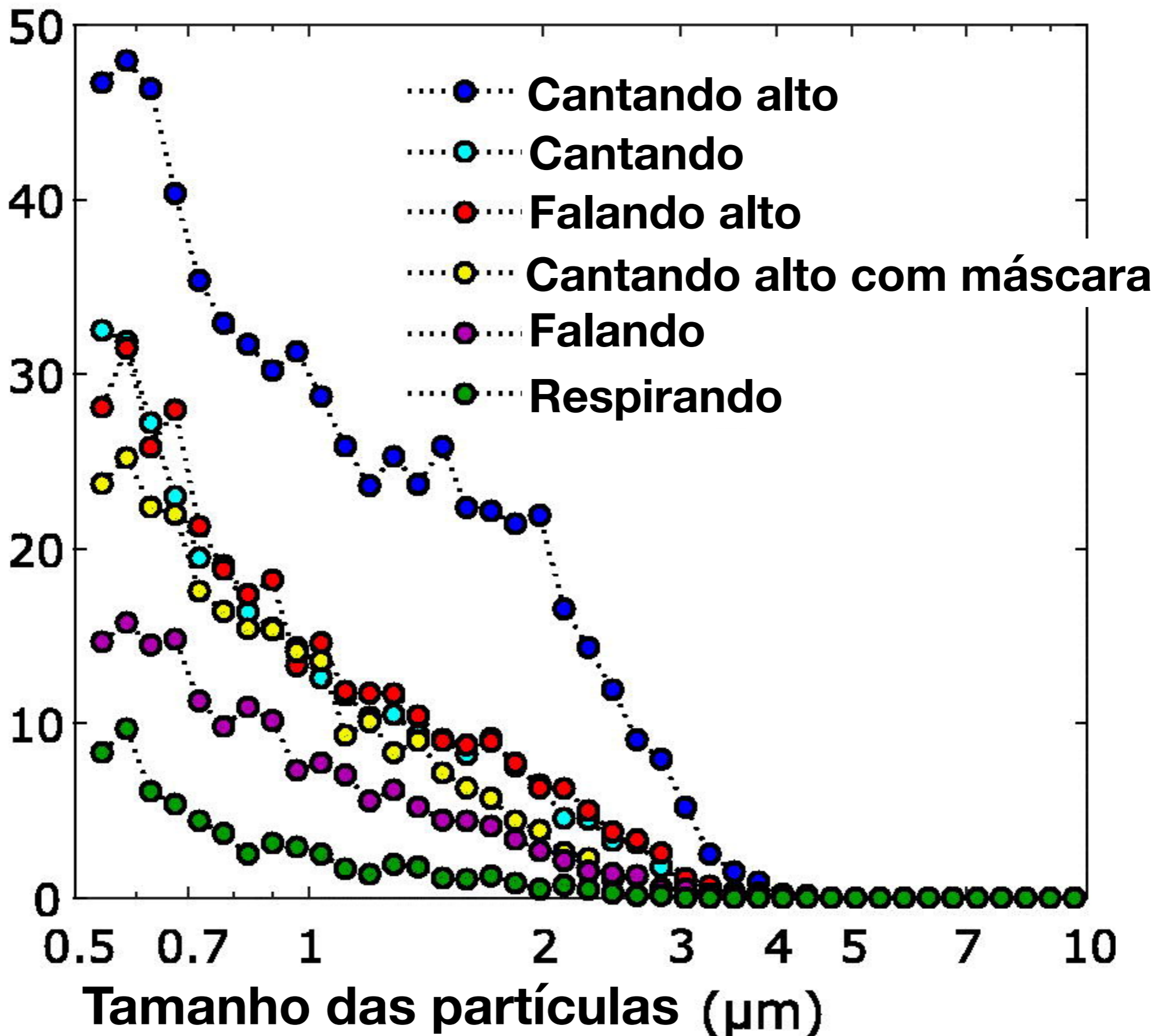
Máscara e Exercício

Ciência do Exercício: saúde e informAÇÃO

Alsved, M., Matamis, A., Bohlin, R., Richter, M., Bengtsson, P-E, Fraenkel, C-J, Medstrand, P. & Löndahl, J. (2020)
"Exhaled respiratory particles during singing and talking", published in Aerosol Science and Technology, 2020



Número de partículas emitidas por segundo



Recomendações do uso de máscara

Advice on the use of masks in the community, during home care, and in health care settings in the context of COVID-19

Interim guidance
19 March 2020



Background

This document provides rapid advice on the use of medical masks in communities, at home, and in health care facilities in areas that have reported outbreaks of COVID-19. It is intended for public health and infection prevention and control (IPC) professionals, health care managers, health care workers, and community health workers. It will be revised as more data become available.

Current information suggests that the route of human-to-human transmission of COVID-19 is either via respiratory droplets or contact. Any person who is within 1 metre (in close contact) of someone who has respiratory symptoms (e.g. sneezing, coughing, etc.) is at risk of being exposed to potentially infective respiratory droplets.

Medical masks are surgical or procedure masks that are flat or pleated (some are shaped like cups); they are affixed to the head with straps.

General advice

Wearing a medical mask is one of the prevention measures that can limit the spread of certain respiratory diseases, including COVID-19. However, the **use of a mask alone is insufficient** to provide an adequate level of protection, and other measures should also be adopted. If masks are used, they must be combined with hand hygiene and other IPC measures to prevent human-to-human transmission of COVID-19. WHO has developed guidance for home care¹ and health care settings² on IPC strategies for use when COVID-19 is suspected.

Wearing medical masks when not indicated may result in unnecessary costs and procurement burdens and create a false sense of security that can lead to the neglect of other essential measures, such as hand hygiene practices. Further, using a mask incorrectly may hamper its effectiveness in reducing the risk of transmission.

Community settings

Individuals without respiratory symptoms should:

- avoid groups of people and enclosed, crowded spaces;
- maintain distance of at least 1 meter from any person with respiratory symptoms (e.g. coughing, sneezing);
- perform hand hygiene frequently, using an alcohol-based hand rub if hands are not visibly dirty or soap and water when hands are visibly dirty;

- cover their nose and mouth with a bent elbow or paper tissue if coughing or sneezing, dispose of the tissue immediately after use, and perform hand hygiene;
- refrain from touching their mouth and nose.

A medical mask is not required for people who are not sick as there is no evidence of its usefulness in protecting them. However, masks might be worn in some countries, in accordance with local cultural habits. If masks are used, best practices should be followed about how to wear, remove, and dispose of them, and for hand hygiene after removal.

Individuals with respiratory symptoms should:

- wear a medical mask and seek medical care as soon as possible if they have fever, cough, and difficulty breathing;
- follow the advice below regarding appropriate mask management.

Home care

WHO recommends that all laboratory confirmed cases be isolated and cared for in a health care facility. WHO recommends that all persons with suspected COVID-19 who have severe acute respiratory infection be triaged at the first point of contact with the health care system and that emergency treatment should be started based on disease severity. WHO has updated [treatment guidelines for patients with ARI associated with COVID-19](#), which includes guidance for vulnerable populations (e.g., older adults, pregnant women and children). In situations where isolation in a health care facility of all cases is not possible, WHO emphasizes the prioritization of those with highest probability of poor outcomes: patients with severe and critical illness and those with mild disease and risk for poor outcome (age >60 years, cases with underlying co-morbidities, e.g., chronic cardiovascular disease, chronic respiratory disease, diabetes, cancer).

If all mild cases cannot be isolated in health facilities, then those with mild illness and no risk factors may need to be isolated in non-traditional facilities, such as repurposed hotels, stadiums or gymnasiums where they can remain until their symptoms resolve and laboratory tests for COVID-19 virus are negative. Alternatively, patients with mild disease and no risk factors can be managed at home. Home care may also be considered when inpatient care is unavailable or unsafe (e.g. capacity is limited, and resources are unable to meet the demand for health care services).

Specific IPC guidance for home care should be followed.

Advice on the use of masks for children in the community in the context of COVID-19

Annex to the Advice on the use of masks
in the context of COVID-19

21 August 2020



Purpose of the document

This document provides guidance to decision makers, public and child health professionals to inform policy on the use of masks for children in the context of the COVID-19 pandemic. It does not address the use of masks for adults working with children or parents/guardians or the use of masks for children in health-care settings. This interim guidance will be revised and updated as new evidence emerges.

Background

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) advise the use of masks according to a risk-based approach, as part of a comprehensive package of public health interventions that can prevent and control the transmission of certain viral respiratory diseases, including COVID-19. Compliance with other measures including physical distancing, hand hygiene, respiratory etiquette and adequate ventilation in indoor settings is essential for reducing the spread of SARS-CoV-2, the virus that causes COVID-19.

This guidance provides specific considerations for the use of non-medical masks, also known as fabric masks, by children as a means for source control in the context of the current COVID-19 pandemic. The document is an annex to the WHO's Advice on the use of masks in the context of COVID-19¹ in which further details on fabric masks can be found. This annex also advises the use of medical masks for children under certain conditions. For the purposes of this guidance, children are defined as anyone below the age of 18 years².

Methodology for developing the guidance

The World Health Organization (WHO) Infection Prevention and Control (IPC) Guidance Development Group (GDG) and experts from UNICEF and the International Paediatric Association (IPA) jointly reviewed the available evidence to develop guidance on the use of masks for children in the context of the current pandemic. Five international expert meetings were held between June and August 2020. In the absence of strong scientific evidence, consensus among these groups forms the main basis for this guidance. Furthermore, the draft guidance was reviewed by a multidisciplinary group of additional external experts prior to finalization.

Available evidence

Transmission of COVID-19 in children

Currently, the extent to which children contribute to transmission of SARS-CoV-2 is not completely understood. According to the WHO global surveillance database of laboratory-confirmed cases developed from case report forms provided to WHO by Member States³ and other studies, 1-7% of COVID-19 cases are reported to be among children, with relatively few deaths compared to other age groups^{4,8}. The European Centre for Disease Prevention and Control (ECDC) has recently reported the age distribution of COVID-19 among children in the European Union (EU), European Economic Area (EEA) and the United Kingdom (UK); they reported that as of 26 July 2020, 4% of all cases in the EU/EEA and the UK were among children⁶.

To date, the available evidence suggests that most reported cases among children have resulted from transmission within households, although this observation may have been influenced by school closures and other stay at home measures implemented by some countries^{7,9}. Although culture-competent virus has been isolated from symptomatic children with viral load levels found to be similar to that in adults¹⁰, evidence from available studies of contacts of COVID-19 cases and cluster investigations suggests that children are unlikely to be the main drivers of COVID-19 transmission^{7,9,11-14}. To date, documented transmission among children and staff within educational settings is limited¹⁵⁻²⁰. Evidence is also limited regarding the prevalence of SARS-CoV-2 infection among children, as measured by seroepidemiology studies. However, available evidence suggests that seroprevalence appears to be lower for younger children compared to older children and adults^{17,21-25}.

Studies of viral load and the duration of viral shedding of infectious virus in children compared to adults, are also limited. One published study suggests that viral load in infected patients may differ by age, and that symptomatic children have a longer duration

Mask use during physical activity

Evidence

There are limited studies on the benefits and harms of wearing medical masks, respirators and non-medical masks while exercising. Several studies have demonstrated statistically significant deleterious effects on various cardiopulmonary physiologic parameters during mild to moderate exercise in healthy subjects and in those with underlying respiratory diseases (134-140). The most significant impacts have been consistently associated with the use of respirators and in persons with underlying obstructive airway pulmonary diseases such as asthma and chronic obstructive pulmonary disease (COPD), especially when the condition is moderate to severe (136). Facial microclimate changes with increased temperature, humidity and perceptions of dyspnoea were also reported in some studies on the use of masks during exercise (134, 141). A recent review found negligible evidence of negative effects of mask use during exercise but noted concern for individuals with severe cardiopulmonary disease (142).

Guidance

WHO advises that people should not wear masks during vigorous intensity physical activity (143) because masks may reduce the ability to breathe comfortably. The most important preventive measure is to maintain physical distancing of at least 1 meter and ensure good ventilation when exercising.

If the activity takes place indoors, adequate ventilation should be ensured at all times through natural ventilation or a properly functioning or maintained ventilation system (144). Particular attention should be paid to cleaning and disinfection of the environment, especially high-touch surfaces. **If all the above measures cannot be ensured, consider temporary closure of public indoor exercise facilities (e.g., gyms).**

Mask use in the context of COVID-19

Interim guidance

1 December 2020



This document, which is an update of the guidance published on 5 June 2020, includes new scientific evidence relevant to the use of masks for reducing the spread of SARS-CoV-2, the virus that causes COVID-19, and practical considerations. It contains updated evidence and guidance on the following:

- mask management;
- SARS-CoV-2 transmission;
- masking in health facilities in areas with community, cluster and sporadic transmission;
- mask use by the public in areas with community and cluster transmission;
- alternatives to non-medical masks for the public;
- exhalation valves on respirators and non-medical masks;
- mask use during vigorous intensity physical activity;
- essential parameters to be considered when manufacturing non-medical masks (Annex).

Key points

- The World Health Organization (WHO) advises the use of masks as part of a comprehensive package of prevention and control measures to limit the spread of SARS-CoV-2, the virus that causes COVID-19. A mask alone, even when it is used correctly, is insufficient to provide adequate protection or source control. Other infection prevention and control (IPC) measures include hand hygiene, physical distancing of at least 1 metre, avoidance of touching one's face, respiratory etiquette, adequate ventilation in indoor settings, testing, contact tracing, quarantine and isolation. Together these measures are critical to prevent human-to-human transmission of SARS-CoV-2.
- Depending on the type, masks can be used either for protection of healthy persons or to prevent onward transmission (source control).
- WHO continues to advise that anyone suspected or confirmed of having COVID-19 or awaiting viral laboratory test results should wear a medical mask when in the presence of others (this does not apply to those awaiting a test prior to travel).
- For any mask type, appropriate use, storage and cleaning or disposal are essential to ensure that they are as effective as possible and to avoid an increased transmission risk.

Mask use in health care settings

- WHO continues to recommend that health workers (1) providing care to suspected or confirmed COVID-19

patients wear the following types of mask/respirator in addition to other personal protective equipment that are part of standard, droplet and contact precautions:

- medical mask in the absence of aerosol generating procedures (AGPs)
- respirator, N95 or FFP2 or FFP3 standards, or equivalent in care settings for COVID-19 patients where AGPs are performed; these may be used by health workers when providing care to COVID-19 patients in other settings if they are widely available and if costs is not an issue.
- In areas of known or suspected community or cluster SARS-CoV-2 transmission WHO advises the following:
 - universal masking for all persons (staff, patients, visitors, service providers and others) within the health facility (including primary, secondary and tertiary care levels; outpatient care; and long-term care facilities)
 - wearing of masks by inpatients when physical distancing of at least 1 metre cannot be maintained or when patients are outside of their care areas.
- In areas of known or suspected sporadic SARS-CoV-2 transmission, health workers working in clinical areas where patients are present should continuously wear a medical mask. This is known as targeted continuous medical masking for health workers in clinical areas;
- Exhalation valves on respirators are discouraged as they bypass the filtration function for exhaled air by the wearer.

Mask use in community settings

- Decision makers should apply a risk-based approach when considering the use of masks for the general public.
- In areas of known or suspected community or cluster SARS-CoV-2 transmission:
 - WHO advises that the general public should wear a non-medical mask in indoor (e.g. shops, shared workplaces, schools - see Table 2 for details) or outdoor settings where physical distancing of at least 1 metre cannot be maintained.
 - If indoors, unless ventilation has been assessed to be adequate¹, WHO advises that the general public should wear a non-medical mask, regardless of whether physical distancing of at least 1 metre can be maintained.

USO DE MÁSCARA EM ACADEMIA

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U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Para reduzir a transmissão do SARS-CoV-2 em **academias**, os membros da equipe e os clientes devem:

- usar uma máscara,

As instalações devem:

- impor o uso consistente e correto da máscara (**inclusive durante atividades de alta intensidade**)
- **exigir e fiscalizar** o distanciamento físico,
- melhorar a ventilação
- lembrar os clientes e funcionários de ficarem em casa quando doentes.

Groves et al. Community Transmission of SARS-CoV-2 at Three Fitness Facilities — Hawaii, June–July 2020. MMWR Morb Mortal Wkly Rep. ePub: 24 February 2021.

Lendacki et al. COVID-19 Outbreak Among Attendees of an Exercise Facility — Chicago, Illinois, August–September 2020. MMWR Morb Mortal Wkly Rep. ePub: 24 February 2021.



Wear a mask
because

Mortal Wkly Rep. ePub: 24 February 2021.

Lendacki et al. COVID-19 Outbreak Among Attendees of an Exercise Facility — Chicago, Illinois, August–September 2020. MMWR Morb Mortal Wkly Rep. ePub: 24 February 2021.



NHS

STAY ALERT

**CONTROL
THE VIRUS**

SAVE LIVES



Contra a Covid-19, o cuidado é de cada um.