

# Strategy Outline for Covid-19 Risk Mitigation in Climbing Gyms

Plan of action for the reopening and operation of climbing gyms,  
in consideration and analysis of the current risk from the Sars-CoV-2 pathogen

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## BACKGROUND INFORMATION

This strategy proposal outline is intended to serve as a guide for interested climbing gyms and to provide a basis for creating the safest possible environment for employees and climbers by specifically minimising the risk of spreading Covid-19 in climbing facilities.

The suggestions and recommendations of the authors are based on expert knowledge and scientific findings, whereby the sources used are carefully selected and checked. The solutional approaches presented here are intended to serve as an aid to decision making and to provide a foundation for concrete mitigation measures. Each facility should also consider their individual circumstances and conditions and adapt their personal strategy and measures accordingly. The goal is to make it easier to identify and evaluate risks and to take the appropriate measures and considerations.

The exchange currently taking place at a European and partly international level, is intended to provide as comprehensive a view of the problem as possible. From the developments and experiences in individual countries, certain scenarios for the climbing gym industry can be further derived.

This strategy proposal is to be regarded as a preliminary publication, and does not claim to be complete. Rather, additions and updates should be incorporated on an ongoing basis. In doing so, we will regularly update this strategy proposal with changes and new information to the best of our knowledge and ability.

### **Notes on some changed points:**

*The following possible hygiene measures are no longer listed as recommendations in the present version, as they may be useful, but possible advantages cannot be sufficiently scientifically substantiated: Barefoot ban, regulation on the use of chalk bags / liquid chalk.*

*The information on the alcohol content in Liquid Chalk (originally stated: 70-99.9%) could not be confirmed; manufacturers state that the alcohol content is usually 25-40%; some manufacturers have announced a planned increase to 80%. Due to a lack of concrete facts, no further details are provided in this edition.*

*Further updates will follow, once we substantiate and examine the information, input and documentation that we have receive.*

## **CURRENT STATUS**

Climbing gyms, like many other sports facilities, have been closed as of March 2020 in most countries in Europe and in many countries worldwide.

The duration of the closure, as a means to contain and suppress the Covid-19 pandemic, is subject to different time frames in each individual European country. However, in light of current developments, it can be estimated that sports facilities throughout Europe, and especially indoor sports facilities, should be prepared for being subjected to even longer periods of closure.

Sports and leisure facilities are not directly systemically relevant and will not be the first to come into the consideration of politicians and policy makers when it comes to the gradual reopening of businesses and activities. Even though health prevention through sport is a socially relevant issue, it must be assumed under current circumstances that a premature opening of climbing gyms is not to be expected, and when gyms open they will likely be subjected to new measures and conditions.

A comprehensive outline of strategies and measures to reduce the Covid-19 risk is needed in order to justify a possible reopening and operation of climbing gyms, whilst maintaining the highest level of hygiene standards.

Climbing gyms in Europe and beyond are facing very similar challenges. Up until now there is very little international communication and cooperation. Climbing gyms have not yet been organised and networked into an international association in which knowledge and know-how is exchanged, solutions are created and concentrated lobbying with politicians is carried out.

## OBJECTIVE

In order to pool resources and develop national, European and international solutions, a transnational working group will gather knowledge and measures for this strategy proposal and outline. Key multipliers from individual countries can share and disseminate this information with their national representatives and their respective gyms. It will be an ongoing process, always taking into account the latest scientific findings and new input and ideas.

In particular, the exchange of experience beyond national borders makes it possible to take a broader look at different scenarios. Findings from national experiences and studies can be taken into account and incorporated in the preparation of a further strategy proposal.

The goal is to create a strategy proposal focused on workable solutions that will make it easier for national authorities to evaluate the reopening climbing gyms. This proposal takes into account scientific findings and current recommendations from experts to provide a helpful and well-founded basis for decisions that health authorities and politicians will have to make.

The proposed measures, which are presented in light of the most current risk analysis are divided into three central cornerstones:

### **Occupancy Flow & Capacity Management**

Enable the control of the number and movement of visitors in and around a climbing gym

Define software solutions and route setting concepts

### **Hygiene Protocol & Protective Measures**

Minimize the risk of COVID-19 according to recommendations by health authorities and latest scientific findings

Consult with certified experts and panels

### **Political Dialogue Lobbying Communication**

Form a unified representation of the interests of climbing gyms, at a national and international level

Inform the climbing industry and community



# 1. Customer Flow Control and Occupancy Management

This point includes all measures that enable control of the number and movement of customers in and around the climbing gym. The goal is to comply with any newly implemented occupancy ordinances, to ensure minimum distances, to relieve crowding during check-in, at the POS, and in the changing rooms and restrooms. It is to be expected that there will be a restriction on the part of legislators to the number of visitors per square metre of floor space.

Measures must be taken to distribute customers sensibly throughout the day and hours of operation. At the same time, the movement of customers throughout the gym should be sensibly controlled and monitored.

Individual, national occupational and trade associations are currently discussing concrete proposals on people per square metre in some countries. In regards to climbing gyms, approaches and standards from other trade and business sectors could also be adopted and implemented.

The following solutional approaches and sub-items can be derived from this by way of example:

- Development of "timeslots" for the use of the gym for a reduced number of visitors: Customers are offered short time slots, e.g. 90 minutes, in which they can come to rope climb or boulder. It would be ideal if climbing availability can be viewed and booked in advance online. It could be useful for customers to make a binding booking or reservation in advance for certain time slots. Here, appropriate online tools can be a solution that creates transparency and ensures cashless payment.
- Avoiding lines by staggered admission and adjusted opening hours.
- It could prove useful to separate and monitor both entrances and departures, as many businesses currently open under restrictions are doing. This would relieve congestion, add to efficiency and ensure compliance.
- Dividing the gym into sectors and areas in which only a limited number of climbers may occupy at any given time. The movement of visitors from sector to sector must also be managed.
- The applicable rules on distancing must be observed and, in particular, ensured to avoid lines and cues especially at the check-in desk, changing rooms and restrooms. Appropriate protective measurements and markings must be made on the floor and walls.

Well planned solution oriented concepts for structured control of visitor flow can be supported above all by software solutions and route setting concepts.

## 1.a Software Solutions

For the reservation of timeslots, plannable visitor utilization, overview of available capacities and also a preferably cashless and contactless method of payment, reasonable software solutions have to be developed.

Conditions regarding maximum visitor numbers can be controlled by online registration and slot reservations.

## 1.b Route Setting Concepts

Route setting and the distribution of routes and boulder problems in the gym will have a considerable influence on customer flow and movement in climbing gyms and should be planned, managed and directed.

### Infrastructural Measures

One of the possible infrastructural measures within the framework of route setting is that certain areas are left blank or set on very thinly, in order to ensure the necessary distances between climbers are maintained.

In rope climbing areas, for example, only every second (or even every third) line would be a viable option. Usually rope and bolt lines are at least one metre apart and if every other bolt line is kept blank, there would be enough space between rope teams.

In bouldering areas, for example, circuits could be created (think miniature golf), where various difficulties could be offered in each area. The distances between the individual sections must be planned accordingly. Another possibility could be defined areas, which could be marked with adhesive or velcro strips on the mats.

The advantage of these exemplary measures is that they provide the necessary infrastructure needed to reinforce the observance of distance rules.

### Organisational Measures

Organisational measures are generally comparable to those mentioned above, but they rely more on the soft skills of the individual and their personal responsibility to behave accordingly and appropriately under the circumstances and to adequately maintain distance from others. It might be an advantage to formulate clear written rules and to display them in several clearly visible positions throughout the gym.

In rope climbing areas, this means pleading for solidarity and cooperation among climbers and making sure they understand and respect the adequate distance measure in place between rope lines.

In bouldering areas this is probably a little more difficult, as the climbing area is not as clearly defined. The only option here is to appeal to boulderers to be aware of each other and to keep and maintain adequate distancing in accordance with the rules.

The advantage of this approach is that hardly any changes have to be made to the planning and volume of route setting once the structure and density is established.

### Combined Measures

A combination of the two approaches, adapted to local conditions, is of course also conceivable. At the organisational level, clear rules of conduct should be formulated.

## 2. Hygiene Protocol and Protective Measures

Taking into account the recommendations of international and national health authorities, as well as current studies and scientific findings, concrete hygiene measures should be followed in climbing gyms to minimize the risk of Covid-19.

The information available to date on the epidemiology of SARS-CoV-2 shows that transmission occurs particularly in close (e.g. domestic or medical care), unprotected contact between people. According to current knowledge, transmission occurs mainly via respiratory secretions, primarily droplets, for example when coughing and sneezing, and during certain medical or dental procedures associated with aerosol formation (e.g. bronchoscopy or intubation).<sup>1</sup>

Droplet infection can occur when droplets produced when coughing and sneezing are absorbed by the opposite person through the mucous membranes of the nose, mouth and possibly the eye.<sup>2</sup> The wearing of additional mouth protection can significantly reduce the spread of aerosol containing coronavirus RNA.

The risk of transmission through contaminated surfaces is considered very low, but cannot be excluded if in the immediate vicinity of an infected person. So far, no study has been able to prove the occurrence of surface contact transmission.

Professor Hendrik Streeck, Director of the Institute of Virology at the University Hospital in Bonn, who is also active on behalf of the government of North Rhine-Westphalia, Germany, was unable to prove or create a surface contact infection in his studies in the epicentre and district of Heinsberg and said: "We know that this is not a surface or smear infection!"

Despite the low risk of infection via surfaces (smear infection), new findings must be continuously checked and evaluated. Depending on the results of corresponding studies, and appropriate countermeasures may have to be considered (disinfection, UV light, etc.).

The points suggested below aim to prevent transmission via droplets, as that is the point of spread according to the current state of knowledge. A distinction must be made

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<sup>1</sup> Robert Koch Institut, 14.04.2020: [Coronavirus SARS-CoV-2 - Empfehlungen des RKI zu Hygienemaßnahmen im Rahmen der Behandlung und Pflege von Patienten mit einer Infektion durch SARS-CoV-2](#)

<sup>2</sup> Robert Koch Institut, 14.04.2020: [SARS-CoV-2 Steckbrief zur Coronavirus-Krankheit-2019 \(COVID-19\)](#)

primarily between visitor-related hygiene regulations and measures that the operator must additionally take.

## 2.a Visitor-Focused Rules and Measures

The protective measures that affect climbing gyms visitors are strongly based on the personal sense of responsibility that each individual takes, but they can also be actively encouraged and enforced by the gym. Depending on the legal situation, the operator is more or less responsible for ensuring that the regulations in place are observed. It is advisable to draw the attention of visitors to the following regulations by means of information boards and or info screens/monitors in the gym.

### Checking Customer State of Health

Customers who feel ill, have a cold or feel fatigued have no business in a climbing gym. Each person's state of health is to be questioned self-critically. If symptoms (fever, cough, breathing difficulties)<sup>3</sup> occur, one should not enter a climbing gym.

As fever is one of the most common symptoms of Covid-19, electronic fever thermometers (measurement from a distance) should be used to measure the customer's body temperature when entering the gym. If the temperature exceeds 37.3 degrees celsius or 99.14 fahrenheit<sup>4</sup>, entrance should be refused.

### Physical Distance Requirements

During the entire climbing gym visit, and also during check-in and check-out, the recommended distance regulations and recommendations must be followed, whereby a minimum distance of one to two meters is generally the given measure.<sup>5</sup> Corresponding markings on the floor and on walls can serve as a guideline and must be observed.

Essentially, it could be specified that teams consisting of a maximum of two people are excluded from this rule when tying in/partner checking and spotting. The partners may not be changed at any time during the climbing session.

### Hand Hygiene

Hand hygiene is one of the most important preventive measures.<sup>6</sup> Immediately after entering the gym and before climbing starts, customers should wash their hands thoroughly according to the general instructions. After using water and soap, disposable paper towels should be used to dry the hands and then disposed of in a specially provided waste bin including bin liner.

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<sup>3</sup> WHO, 14.04.2020: [Advice for public](#)

<sup>4</sup> WHO, 14.04.2020: [Getting your workplace ready for COVID-19](#)

<sup>5</sup> Deutsche Lungenstiftung, 14.04.2020: [Covid-19 » Schutz vor Ansteckung »](#)

<sup>6</sup> WHO, 14.04.2020: [Advice for public](#)

## Hand Disinfection

In addition to hand hygiene, customers must rub their hands with a suitable disinfectant after washing and drying. The average alcohol content must be at least 70% to eliminate corona viruses.<sup>7</sup>

Customers should also regularly disinfect their hands during climbing breaks, and before they resume climbing a route or boulder problem. For this purpose, additional disinfectant dispensers must be provided by the gym.

## Liquid Chalk and Loose Chalk Considerations

As an additional measure, the use of liquid chalk should be considered. The North American based Climbing Wall Association (CWA), has commissioned a study to investigate both the effect of liquid chalk (high alcohol content) and the effect of loose chalk/powder magnesium (PH value) on the virus.

## Mandatory Mask Wearing

Masks are already compulsory in several countries, and the wearing of masks should help prevent the spread of the virus. Inside the gym and in the gym's general vicinity, in addition to observing the distance regulation, it should be obligatory to cover mouth and nose appropriately when other people are in the vicinity.

Multilayer medical mouth-nose protection (MNS) is suitable for hindering the release of pathogen-containing droplets from the nasopharyngeal cavity of the wearer and serves primarily to protect the other person (foreign protection). At the same time, it can protect the wearer from absorbing droplets or splashes via mouth or nose, e.g. from the nasopharyngeal cavity of the opposite person (self-protection).<sup>8</sup>

Various studies have also shown that the spread of aerosol containing coronavirus RNA into the ambient air could be prevented by surgical masks.<sup>9</sup>

## Considerate Cough and Sneeze Conduct and Compliance

Furthermore, the generally known and communicated rules of conduct for coughing and sneezing must be observed, i.e. mouth and nose must be protected with the bent elbow or with a cloth which is then disposed of.

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<sup>7</sup> Liste geeigneter Desinfektionsmittel, 14.04.2020: VAH, Deutschland: [VAH-Liste - VAH](#)  
EPA, USA: [List N: Disinfectants for Use Against SARS-CoV-2 | US EPA](#)

<sup>8</sup> Robert Koch Institut, 14.04.2020: [Coronavirus SARS-CoV-2 - Empfehlungen des RKI zu Hygienemaßnahmen im Rahmen der Behandlung und Pflege von Patienten mit einer Infektion durch SARS-CoV-2](#)

<sup>9</sup> Robert Koch Institut, 14.04.2020:: [SARS-CoV-2 Steckbrief zur Coronavirus-Krankheit-2019 \(COVID-19\)](#)



## Drinks and Water Bottles

Water bottles that climbers bring should only be kept in their own backpacks or bags and stowed away again immediately after drinking. Refilling bottles at the gym's water taps should be prohibited.

## 2.b Operator-Focused Rules and Measures to Protect Visitors

The operator must take measures to protect the customer, but also to protect their employees.

### Cleaning of Surfaces and Objects

Surfaces in the gym (except for climbing walls) must be cleaned regularly with damp and certified cleaning agents. The boulder mat has to be damp-cleaned as well, if possible. It can be useful to treat smooth surfaces with disinfectant spread over a large area.

Areas or objects that are touched particularly frequently (excluding climbing holds), such as door handles, counter surfaces at the check-in or EC terminals, must be cleaned hourly with a surface disinfectant.

**If all other risk-minimizing measures (including compensation measures) are observed and all scientific findings on the transmission paths are taken into account, regular disinfection of climbing holds should be avoidable. Climbing holds also have a rough and dry surface which is not hospitable environment for the virus.**

*In general, human corona viruses are not particularly stable on dry surfaces. The Federal Institute for Risk Assessment (BfR) in Germany, is not aware of any infections with SARS-CoV-2 through contact with surfaces. In principle, corona viruses can get onto surfaces through direct sneezing or coughing of an infected person and survive only briefly. A smear infection of another person appears possible if the virus is transmitted shortly afterwards via the hands to the mucous membranes of the mouth and throat or the eyes. To protect yourself from virus transmission via contaminated surfaces, it is important to observe the general rules of everyday hygiene, such as washing your hands regularly and keeping your hands away from your face.<sup>10</sup>*

### Visitor Density in Changing Rooms and Restrooms

Narrow spaces such as changing rooms and bathrooms may only be entered by a very small number of people at a time. Here a key of 1 person per 4m<sup>2</sup> could be a guideline.<sup>11</sup> Under certain circumstances, additional rooms for changing or additional bathrooms must be provided. Walking paths and waiting areas must be designed and marked according to the distance rules.

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<sup>10</sup> Bundesinstitut für Risikobewertung, 16.04.2020: [Kann das neuartige Coronavirus über Lebensmittel und Gegenstände übertragen werden?](#)

<sup>11</sup> Schweizer Bundesamt für Gesundheit BAG, 14.04.2020: [Erläuterungen zur Verordnung 2 vom 13. März 2020 über Massnahmen zur Bekämpfung des Coronavirus \(COVID-19-Verordnung 2\)](#)

### **Closure of Showers**

Showers will remain closed for the entire duration of the Corona pandemic, during which special rules and regulations apply.

### **Provision of Additional Sinks**

In order to enable customers to ensure quick and regular hand hygiene, additional sinks with soap, paper towels and waste bins may have to be provided. Used paper towels, but also handkerchiefs or the like must be disposed of immediately in containers provided and regularly removed from the gym.

### **Provision of Disinfectant Dispensers**

Disinfectant dispensers are to be placed at various points in the gym, for example at the entrance or reception, in the changing rooms and bathrooms, and near the climbing wall. The staff should guard and ensure that disinfectant is used by everyone.

### **Provision or Sale of Masks**

Customers should be provided or sold masks in the climbing gym.

### **Ensuring Sufficient Ventilation**

The climbing gym must be ventilated regularly, with cross-ventilation for 10 minutes once an hour if possible. The ventilation and air-conditioning systems must be checked, cleaned and, if necessary, adapted or replaced.

With adequate ventilation, the number of infectious agents in the air can be kept low.

### **Notes on Hygiene and General Protective Measures**

The applicable rules and recommendations should be indicated on placards and or monitors. Videos can also be an efficient means of communicating correct behaviour in climbing gyms.

## **2.c Employer-Focused Responsibilities and Measures to Protect Employees**

Climbing gym employees must be offered the highest degree of protection. First of all, the regulations from the respective professional associations and bodies apply in order to take measures that largely minimize the risk of employee infection. In addition to the above-mentioned regulations and measures that apply to visitors, further measures should be taken for employees in particular:

### **Hygiene and Protection for Employees**

The climbing gym should have its own designated facilities for hand hygiene and disinfection solely for employees only.

In addition, disposable gloves and masks are to be provided for the staff.

In order to protect personnel with customer contact, spit protection walls should be set up at the check-in (POS) and at counters, for example.

*The use of protective screens or stretched protective foils for use in public facilities to protect staff (e.g. cash registers and counters) from contamination with Covid-19 from exhaled air from customers can be seen as a possible "building block" to interrupt the chain of infection. From our professional point of view, a protective screen inhibits the direct exposure of the employee to the exhaled air of customers (e.g. when coughing). The size should cover the breathing area so that the typical body dimensions of adult persons can be assumed.<sup>12</sup>*

## Planning the Deployment of Personnel

Employees should be divided into two or three teams that never work on the same days. Should anyone become infected, the exposure is limited to one team.

## Contact Minimization

Possibilities should be explored for cashless payment in the gym. With optional software solutions, a different form of payment can be made possible and contact between employees and customers can be significantly reduced.

## Workplace Cleaning

The surfaces of workplaces used jointly are to be cleaned with standard household cleaners after personal use.

Preventive surface disinfection, even of frequently used contact surfaces, is not considered necessary even in the current COVID-19 pandemic. Further information can be obtained from the Federal Office for Occupational Safety<sup>13</sup> (Germany) or other national authorities.

## 2.d Other Extended Preventive Measures or Additional Protection

Depending on national developments, a so-called health passport or similar proof can be used to confirm the immunity of a customer.

It is also conceivable that customers will have to identify themselves at the entrance or provide their name and contact details so that they can be contacted immediately in the event of a risk of possible infection. In this context, the use of "Contact Tracing Apps" could also be envisaged as a mandatory tool in climbing gyms.

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<sup>12</sup> Bundesamt für Arbeitsschutz, 16.04.2020: [Antworten auf häufig gestellte Fragen zu Tätigkeiten außerhalb von Gesundheitswesen, Laboren und Sozialwesen - Bundesanstalt für Arbeitsschutz und Arbeitsmedizin](#)

<sup>13</sup> Bundesamt für Arbeitsschutz, 16.04.2020: [Antworten auf häufig gestellte Fragen zu Tätigkeiten außerhalb von Gesundheitswesen, Laboren und Sozialwesen - Bundesanstalt für Arbeitsschutz und Arbeitsmedizin](#)

***Under certain circumstances it may be useful to have the entire risk mitigation proposal or parts of it checked by certified experts and evaluators.***

### **3. Political Dialogue, Lobbying and Communication**

The targeted communication and dialogue from various stakeholders in the climbing gym industry, with institutions and political decision makers is an important part of the overall strategy and ensures that the aforementioned concepts and measures can be implemented efficiently.

#### **3.a Communication at a Political Level**

A targeted communication strategy is needed in order to be heard at a political level, to make contact with health authorities and to influence policy makers.

There is currently no unified representation of the interests of climbing gyms on a European, let alone international level. In many countries even a consolidated national representation is lacking. Furthermore, there is also little networking within the entire sports and fitness industry.

A good communication strategy, which considers different matters, and what needs to be emphasized and addressed can be the basis for an effective common initiative and representation of interests.

#### **3.b Addressing Different Stakeholders and Target Audiences**

It is necessary to inform the climbing industry about the international dialogue taking place, and the measures and strategic instruments being considered, and keeping them abreast of their current situation is needed.

The next step is to draw the attention of political decision-makers to our plight, but also to our concrete solutions.

The targeted addressing of climbers, customers and clients is to be understood as an important means of spreading messages and results, and also for obtaining expert knowledge from the customer base and using the network of the climbing community as a resource to provide further assistance and insight.

#### **3.c Communication with Employees**

As the reopening phase approaches, employees should be among the first to be fully informed. They should first be given general information and guidelines about the danger

and the spread of the virus, the possible ways of infection and general recommendations from the relevant health institutions.

In addition, they should be informed about the measures that will be taken in the climbing gym and about new rules, so that they can ensure compliance when the reopening phase commences.

An initial staff briefing can take place online via a video conference, with the new guidelines being sent to staff by email in advance to prepare questions.

Employees must be prepared in advance of the reopening in order to properly address and inform customers about the new rules and measures. In addition, employees should have access to documents and checklists for the hygiene protocol and rules on site.

### **3.d Communication with Customers**

Information on all new measures affecting the customer should be disseminated through the available communication channels (website, newsletter, social media) before re-opening.

A largely similar communication by all climbing gyms in Europe and other affected countries worldwide will likely lead to a rapid, positive spread of awareness in the climbing community.

Neighbouring climbing gyms in particular should coordinate among themselves and perhaps jointly coordinate the date of reopening and introduce the same or similar rules.

#### **CONTACT**

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