

Heyfair

# Instruction

for hygiene officers

Hand sanitizer training  
with DesiCoach®



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# Introduction

Proper hand disinfection saves lives.

We have developed DesiCoach so that hygiene training can better prepare for the daily on-the-job challenges. DesiCoach therefore makes it possible, for the first time, to check all the characteristics of correct hand sanitizing in a simple way and in accordance with the specifications of the **Robert Koch Institute**: the rub-in technique, required dosing quantity and exposure time.

In this manual, you will learn how to plan and conduct a training session with DesiCoach and which scientific principles must be taken into account when sanitizing the hands effectively.

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# Storage

How is DesiCoach stored?

The natural dye used in DesiCoach is heat-sensitive and may lose opacity after some time. Shelf life will improve considerably, if you store DesiCoach in the **refrigerator**.



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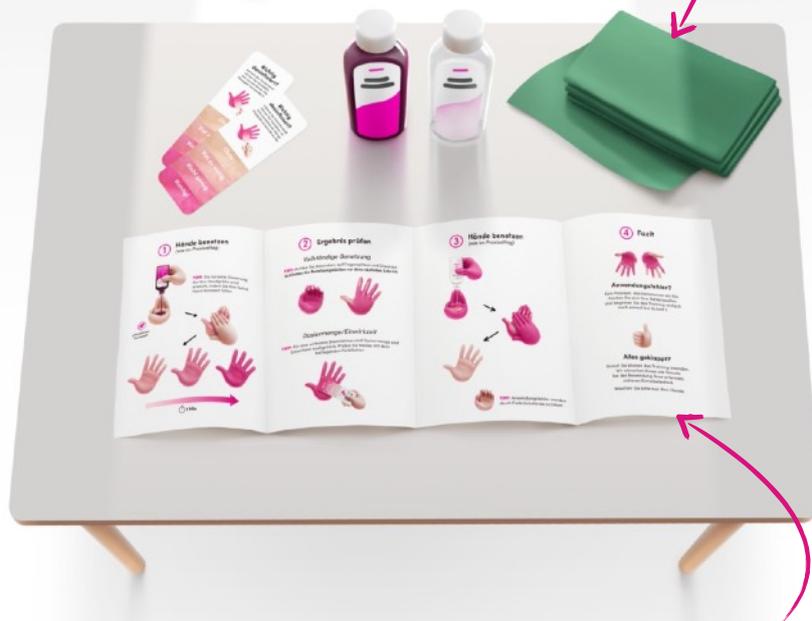
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# Preparation

How should the training be prepared?



- The training should take place in a well-lit location.
- Spills may occur. Keep damp cloths at hand.



- Provide a table, training set, two color fans, and instructions for every four participants.
- Lay out mats if the table and floor are not easily cleaned.

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## Step 1

# Colouring hands

## Wet your hands with DesiCoach ①

Training with DesiCoach works best when several people are trained at the same time. Ask the trainees to wet their hands with **DesiCoach 1** one after the other, just as they would with conventional disinfectants. If you notice any errors, give instructions for optimization afterwards.

After the liquid has dried, the coloration increases further and any mist area's become visible.



**In this step, the following learning objectives should be taught, and their correct implementation will be checked in the second step:**

### **Sanitizing effectively**

*by using the correct dosing quantity*

(page 5)

### **Avoid dripping**

*to ensure efficacy & skin compatibility*

(page 6)

### **Complete wetting**

*through an individual rub-in technique*

(page 7)

## LEARNING OBJECTIVE I

# Disinfect effectively

### How to ensure the effectiveness of disinfection?

For effective disinfection, 3–5ml of disinfectant must be completely distributed on the hands over the duration declared by the manufacturer (usually 30 seconds), depending on the size of the hands. The hands must be wet for the entire time.<sup>[1]</sup> If too little disinfectant is used, the germicidal efficacy is impaired<sup>[2]</sup> and complete wetting is usually not possible.<sup>[3] [4]</sup>

The dosage quantity used is therefore decisive for the effectiveness of the disinfection and influences both the exposure time and the completeness of the wetting. For this reason, it makes sense to use the **dosing quantity as a guide** in professional practice.

This method can be trained with the help of DesiCoach. To do this, the person being trained fills the hollow hand with liquid and simply memorizes how far the hand was filled. In practice, the same amount is then always used.



### It's quite simple:

Fill the hollow hand completely and memorize the filling quantity. If the disinfectant is rubbed in until the hands are dry, the exposure time is automatically complied with.

**IMPORTANT!** *Orienting towards the amount of dispenser lever actions is not useful, since the output quantities vary!*

### Current controversy: 15 or 30 seconds?

To increase motivation for hand disinfection, many hygienists now recommend a rub-in time of only **15 seconds**, which is why „Aktion Saubere Hände“ also promoted it. **However, the short rub-in duration in no way absolves the user from the correct dosage and complete wetting of the hands!**

Practically, therefore, rubbing can be stopped after 15 seconds, but with a sufficient dosage amount, the hands will still be wet for 15 more seconds at this point.<sup>[5]</sup>

Therefore, if you recommend abbreviated hand disinfection to your college, please **be sure to train a technique that will ensure complete disinfection in such a short time and ensure that an adequate amount of fluid is used at all times.**

## LEARNING OBJECTIVE II

# Avoid dripping

### Why avoid dripping?

Dripping of disinfectant should be avoided. There are two reasons for this:

1. If too much disinfectant is dripped, the remaining amount of liquid is not sufficient to disinfect effectively (compliance with the declared exposure time).
2. More disinfectant must be used to maintain effectiveness despite dripping. This stresses the skin more than necessary, as solvents such as water and alcohol dissolve skin lipids from the skin.<sup>[6][7]</sup> If the liquid is subsequently allowed to drip, the skin lipids are lost instead of being rubbed back into the skin, which gradually dries out the skin and can cause irritation.

### How to avoid dripping?

Dripping can be avoided by training and internalizing a procedure in which the disinfectant is first distributed over a large area on the palms and outer surfaces of the hands. The following procedure provides good results:



①

Hold liquid in one hand. Place fingers lightly over each other and squeeze tightly.



②

Gently rub the palms of the hands held horizontally together and distribute liquid over the entire surface.



③

Place the back of the hand on the hand holding the liquid and rub together over the entire surface.



④

Wet the other back of the hand completely. Then continue with further rub-in steps.

## LEARNING OBJECTIVE III

# Complete wetting

### Which rub-in technique provides the best results?

Disinfections should always be performed without gaps, paying particular attention to wetting the fingertips, nail folds, and thumbs.<sup>[8][9][10]</sup>

Studies have shown that a standardized sequence of movements, such as the commonly practiced "6 steps,"<sup>[11]</sup> yield comparatively poor results.<sup>[12]</sup>

In professional practice, therefore, the use of an individually developed sequence of movements (self-responsible rubbing technique) is recommended, which must be trained in advance by visualizing hand disinfection.<sup>[13][14][15]</sup>

These findings were confirmed during the development of DesiCoach. Through repeated training, most test subjects were able to develop a rub-in technique within a very short time, which reliably leads to a gap-free result. To achieve a good result quickly, it makes sense to point out typical problem areas in advance.

### Common sources of error



## Step 2

# Check result

## Evaluation of wetting and dosing

As soon as DesiCoach has finished coloring your hands, the **completeness of the wetting** is checked.

Areas of skin that are not colored indicate errors in the rub-in technique. Together with the participants, consider what actions can be taken to correct these errors.

If large areas of skin are not stained, ask the person concerned to wet these areas again with DesiCoach 1.

The enclosed color fan is used to check the **effectiveness of the disinfection** (see "Disinfect effectively" learning content).

If there is only a weak coloration, too little liquid was applied to the respective skin areas. Decolorize the hands according to step 3 and repeat the training.



### Recommendation:

Always try to do the training in groups. You can maximize the learning effect by having the trainees evaluate each other's results.

### Step 3

## Decolorize hands

### Wet the hands with DesiCoach ②

As soon as the evaluation is completed, the hands are decoloured again with **DesiCoach 2**. The decolourisation occurs directly during application, so that this time the trainees can directly observe the success of the disinfection. Incorrect dosing quantity and rub-in technique become visible through colour residues.

**TIP:** There are **colour residues** on the fingernails? Check whether these can be removed by rubbing in additional decolourising liquid. If this is the case, there is potential for optimising the rubbing technique. The tricky skin areas around the fingernails should be better wetted by rubbing the fingertips and fingernails in the palm of the other hand.

If the colour residue is very difficult to remove, it is often a sign of very dry skin, cracked corneas or accumulations of environmental particles lodged in the crevices of the skin. In these cases, please advise the affected person to take greater care of his or her hands in order to remove these pathogen reservoirs.



**IMPORTANT!** Make sure that the trainees use the same amount of liquid as in step 1. If too little liquid is used, the decolourisation may not be complete. If too much liquid is used, it may not be possible to colour the hands again if the training is repeated (in this case, step 1 (colouring the hands) must be carried out twice or the hands must be washed).

## Conclusion

# Finish training

### ...or repeat?

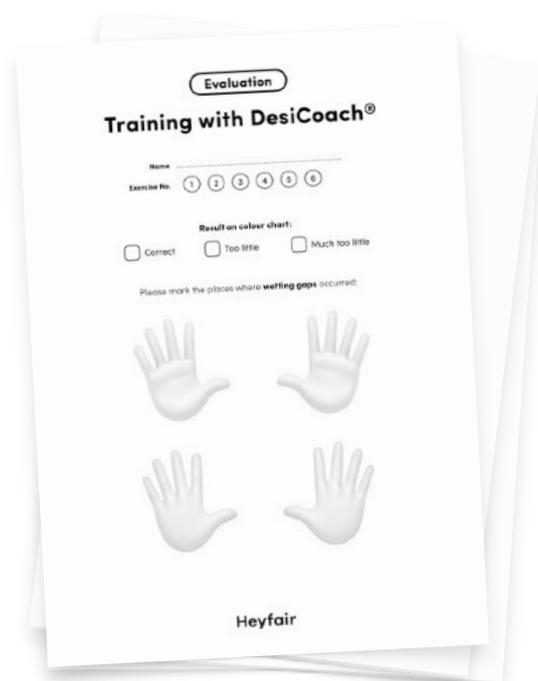
Depending on how well the training objectives have been met, the training can be ended at this point or started again. It is recommended to train several times and to refresh the learning content at regular intervals to ensure a continuously high quality of hand disinfection.

**IMPORTANT!** Finally, remind the trainees once again that the technique they have learned must be practised in the same way in their daily work in order to effectively break chains of infection.

### Documenting the results

If you would like to document and evaluate the learning success of the participants, you can download and print an evaluation form via this link:

 [heyfair.de/protokoll](https://heyfair.de/protokoll)



# Frequently asked questions

## How many people can be trained with one set?

With an average hand size and experienced trainees, up to 25 people can be trained with one DesiCoach set. For beginners, the quantity is sufficient for about 15 people.

## Some liquid was spilled on clothes. What to do?

Simply rinse the stain with warm water. As the natural dye is easily soluble in water, this is sufficient in most cases. The stain should be gone after just one wash in the washing machine.

**IMPORTANT!** Please do **not** use the decolourising solution to remove stains as it may bleach some textiles.

## With which products is DesiCoach compatible?

DesiCoach uses a similar basic formulation as most liquid alcohol-based disinfectants. The findings and techniques developed are therefore easily transferable to other products that have a declared exposure time of 30 seconds.

There are only limitations in the transferability of gels and foams, as these have longer drying times. For this reason, you should train the required dosing quantity for gels and foams with a stopwatch.

## Despite correct dosage, the hands are hardly coloured. What's wrong?

This can have several reasons:

1. The dosing quantity was not correct or too much liquid was dripped. Measure the exposure time with a watch for clarification. If it is less than 30 seconds, the problem is an application error.
2. On a few skin types, the colouring does not work on the first application. Ask the affected person to wash their hands and try again.
3. The best-before date has expired or DesiCoach has been stored incorrectly. It is best to store DesiCoach in the refrigerator to significantly extend its shelf life.

## Why is DesiCoach 1 only fully coloured after about one minute?

The dyeing is time-delayed so that the trainees cannot yet see if there are any gaps in wetting during the rub-in time of 30 seconds.

## Can people with dark skin also be trained with DesiCoach?

Yes. The dye also makes wetting gaps on dark skin easily visible.

## Can I also use DesiCoach as a disinfectant?

No. Although DesiCoach is based on the formulation of classic disinfectants, it is not certified as a disinfectant.

## I am afraid that DesiCoach will leave stains. What can I do?

DesiCoach is very soluble in water and should not stain smooth and sealed surfaces. To be on the safe side, you can of course lay out newspaper, paper towels, foils or other protective mats.

## Further questions?

We are here to help you.

Feel free to contact us with your questions about DesiCoach  
or hand hygiene at [\*\*service@heyfair.de\*\*](mailto:service@heyfair.de).

In urgent cases you can reach us by telephone at

+49 (0) 3641 - 508 201

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