Heyfair

Guide

for hygiene training

Effective hand disinfection training with DesiCoach®

1

INTRODUCTION

Effective hand disinfection saves lives.

Hand disinfection is one of the most important ways to prevent infections. But in everyday practice, mistakes still happen: too little liquid, missed skin areas, or a sequence that reaches critical areas too late.

We developed DesiCoach® to help hygiene training prepare teams more effectively for the daily challenges of practical use.

In line with the recommendations of the **Robert Koch Institute (RKI)**, DesiCoach® makes the key elements of correct hygienic hand disinfection visible and easy to check:

- **Dosage amount:** individual amount for full coverage and contact time
- **Rub-in technique:** the optimal technique for complete coverage of all hand areas
- **Sequence:** prioritizing highly contaminated and hard-to-disinfect skin areas
- **Drip losses:** preventing liquid loss during application

These instructions show how to carry out and evaluate training with DesiCoach®. They also explain the key learning objectives that are crucial for effective hygienic hand disinfection.

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DESICOACH METHOD

What makes DesiCoach® special?

DesiCoach® visualizes the quality of hand disinfection under real lighting conditions, without UV technology. The method offers much more than a simple check: it is an active training tool that helps improve hand disinfection intuitively and sustainably.

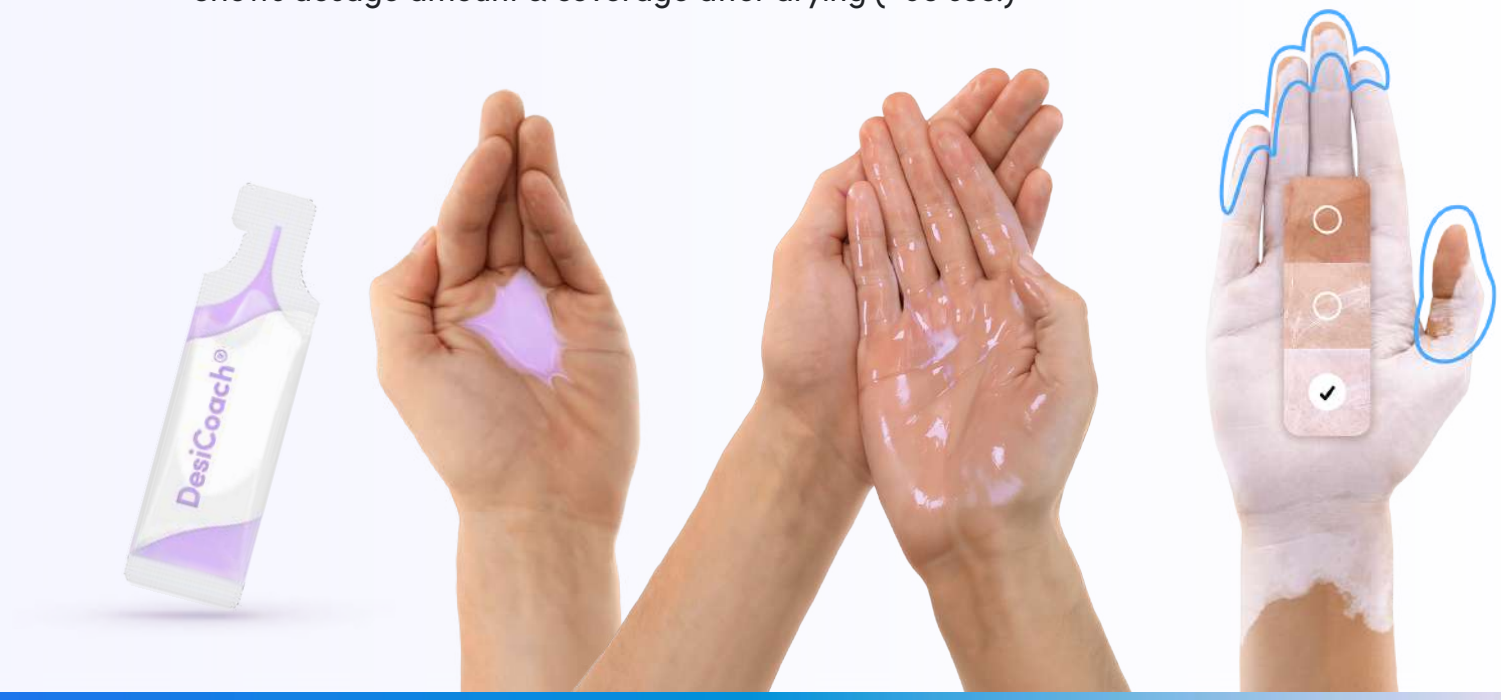
The method uses two specially coordinated training fluids.

- **DesiCoach® Colorizer:** The fluid remains transparent during application. Once dry, the coloring reveals coverage and dosage amount.
- **DesiCoach® Decolorizer:** During decolorization, coverage becomes visible in real time. This allows the rub-in technique to be adjusted and optimized directly during use.

Colorizer

Check technique

- Transparent during application
- Shows dosage amount & coverage after drying (~30 sec.)



Decolorizer

Optimize technique

- Immediate feedback during application
- Shows coverage & sequence problems

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TRAINING

How does the training work?

With DesiCoach®, training is quick and easy to organize - whether as a group session with the team or as self-guided training with an online guide. You will need:

- A **well-lit** training area
- **Wet wipes** in case of spills
- **Protective covers** if tables or floors are not easy to clean
- And of course: **DesiCoach® Training Sets**

TRAINING MATERIAL

An accompanying presentation and other helpful DesiCoach® training materials are available online at:

heyfair.de/training

STEP 1

Dose & rub in

Shake the Colorizer thoroughly before starting to loosen the sediment.

Dispense the Colorizer fluid into your cupped hand. As a rule of thumb, your palm should be completely filled with liquid. Depending on hand size, this corresponds to about 3–5 ml, so some liquid may remain in the Stickpack. The next step will show whether the amount was sufficient.

Now disinfect your hands exactly as you do in everyday practice. This is the best way to learn from possible mistakes.

LEARNING OBJECTIVES

Step 1 introduces the following learning objectives, which are checked in Step 2:

LEARNING OBJECTIVE 1: The individual dosage amount **(Page 11)**
LEARNING OBJECTIVE 2: The optimal rub-in technique **(Page 13)**
LEARNING OBJECTIVE 4: Avoiding drip losses **(Page 17)**

STEP 2

Check dosage amount & coverage

Now let the “DesiCoach® magic” happen: wait until the liquid has dried completely and the color has fully developed before checking the final result.

Check coverage: Can you still find uncolored areas on your hands or wrists? Think about which hand movements could help you reach these wetting gaps more effectively. You can try them right away in the next step with the Decolorizer.

Check dosage amount: Use the Color Card to compare the intensity. Hold it against the palm of your hand. Strong coloring indicates that you used a sufficient dosage amount for your hand size. Pale coloring suggests that too little liquid was applied. With a disinfectant, this could impair the declared efficacy.

TIP

Is the coloring too pale despite using enough liquid? This may be due to too much liquid dripping off during application or to residues from hand creams or disinfectants that affect the coloring. In that case, wash your hands and simply restart the training.

STEP 3

Decolorize & optimize

Now the Decolorizer comes into play. It is not simply the fastest way to remove the color, but also an essential part of the training.

Dose as in Step 1 and use an amount sufficient for your hand size. Since decolorization occurs immediately on skin contact, the effect is visible in real time: you can see directly which areas your hand movements cover.

Use this immediate feedback to actively analyze your rub-in technique: Which movements work well, and how can you adjust your technique to reach every area in a short time?

LEARNING OBJECTIVES

Step 3 introduces the following learning objectives, which are checked in Step 4:

LEARNING OBJECTIVE 2: The optimal rub-in technique **(Page 13)**
LEARNING OBJECTIVE 3: The correct sequence **(Page 15)**

STEP 4

Check coverage & sequence

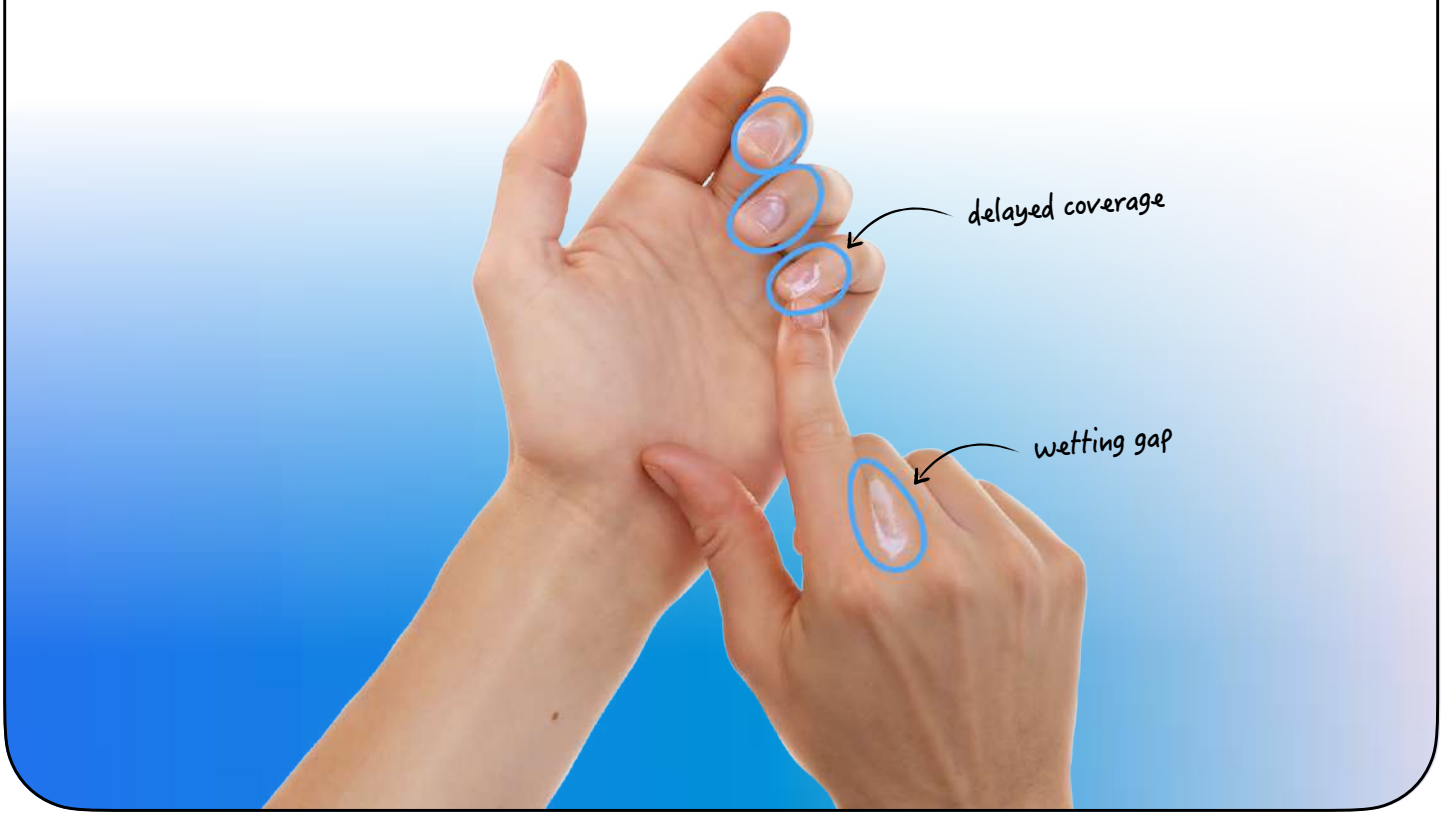
After decolorizing, do not simply rub away possible color residues. Take another careful look at your hands. Residues provide valuable clues: they show which areas were not reached at all or were reached too late. This check helps you identify your personal "blind spots" and avoid them in everyday practice.

Check coverage: Can you still find larger white-colored areas on your hands? These are typical wetting gaps. In your next training session and in practice, make sure to include these areas deliberately with targeted hand movements.

Check sequence: Can you still find partial color residues, for example on fingernails, nail folds or in skin folds, while the surrounding area is well decolored? This indicates delayed coverage. Make sure to cover tricky skin areas right at the beginning with enough liquid.

TIP

If color residues can be easily removed with a little extra Decolorizer fluid or water, the optimization potential usually lies in your technique. If the residues are difficult to remove, this may be a signal from your skin. Very dry or cracked areas can provide germs with favorable hiding places and may act as pathogen reservoirs. In this case, consistent hand care is key: healthy, supple skin is easier to disinfect and less likely to harbor germs.



CONCLUSION

Repeat or finish the training?

If you noticed critical mistakes, repeat the training right away. This will help you quickly develop a disinfection technique that works well for you.

After about one week of practical use, repeating the training can also be useful. This helps ensure that no new mistakes have crept in.

After that, annual training is recommended by the Robert Koch Institute (RKI) and is part of regular hygiene training requirements in most European countries.

Repeat: The training can be repeated several times in a row if needed. If you start another round right away, wash your hands under running water first so that the Colorizer can develop properly again.

Finish: Great! Any remaining color residues can simply be washed off under running water or removed with hand disinfectant.

IMPORTANT: *At the end, remind yourself to consciously use the technique you learned in everyday work to effectively interrupt chains of infection.*

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LEARNING OBJECTIVES

From training to safety

The following section introduces the key learning objectives for effective, skin-friendly and professional hand disinfection.

OBJECTIVE 1

The individual dosage amount

The dosage amount is crucial for the efficacy of hand disinfection: the disinfectant must be fully distributed over the hands and remain wet for the entire contact time declared by the manufacturer, usually 30 seconds.[1] For this, a dosage amount of **at least 3 ml or 3–5 ml** is recommended.

But how much liquid does your own hand size actually need?

Why is the individual amount so important?

Scientific studies show that a one-size-fits-all approach does not work in hand hygiene: since the required amount **correlates significantly with hand surface area**, the dosage should always be adapted to the individual hand size.[2][3]

If too little disinfectant is used, the antimicrobial efficacy decreases[4] and complete coverage is usually not possible.[5][6] Significant overdosing, on the other hand, leads to unnecessary consumption, more drip losses and avoidable stress on the skin's protective lipid barrier.[7]

Because the amount dispensed per pump action can vary considerably between dispenser systems – and also depending on the product, fill level and usage interval – counting pump strokes is not a reliable guide in everyday work.[8]

For practical guidance, the World Health Organization (WHO) recommends the palmful rule: ***"Apply a palmful of hand disinfectant ..."*** [9]

How do I determine my dosage amount with DesiCoach®?

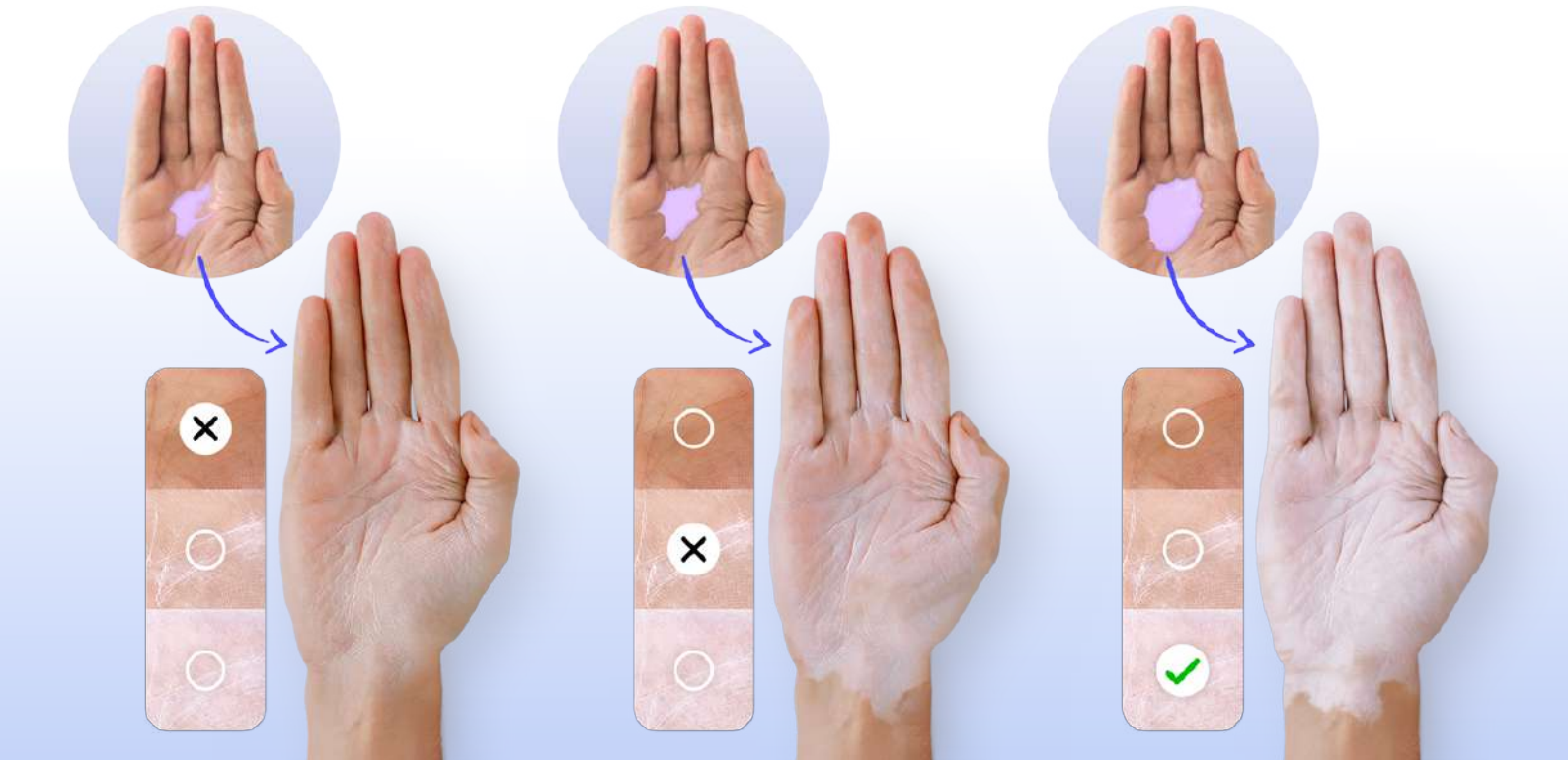
The DesiCoach® method helps you apply the palmful rule safely through an objective, visual check of your dosage amount.

IT'S THAT SIMPLE

Your cupped hand is the ideal measuring cup: its volume increases in proportion to hand size, and you always have it with you. The goal is to develop a feel for the individual amount needed in your own cupped hand.

DesiCoach® Colorizer: After the Colorizer has been consciously dispensed into the cupped hand and spread completely, the resulting color intensity on the palm is compared with the Color Card. This shows whether the amount used would be sufficient for effective hand disinfection.

Once you have developed that feel, it helps you achieve effective hand disinfection in everyday work, regardless of the dispenser model - safely, skin-friendly and economically.



Much too little:
The declared efficacy was not achieved.

Too little:
The declared efficacy was probably not achieved.

Correct:
The declared efficacy was achieved in the colored areas.

OBJECTIVE 2

The optimal rub-in technique

Wetting gaps are a critical problem because they go unnoticed in everyday practice. Thumbs, fingertips, backs of hands and nail folds are often not covered sufficiently.[10][11]

Studies have shown that the widely used "6-step" method according to EN 1500[12] can deliver poorer coverage results than a self-directed method. Because the 6 steps, each repeated 5 times, are too complicated and impractical in daily practice, they are often not followed consistently.[13] By contrast, the self-directed method is outcome-oriented and focuses directly on complete coverage of all skin surfaces and the conscious inclusion of critical areas.

Several professional societies therefore recommend a **self-directed rub-in technique**. To master it safely, it should first be trained using visual feedback.[14][15][16]

Check and optimize with DesiCoach®

In everyday practice, hand disinfection often happens on autopilot. The DesiCoach® method uses visual feedback to reveal unnoticed mistakes and helps refine the routine.

STATUS CHECK

DesiCoach® Colorizer: To provide an honest check of the usual technique, the Colorizer remains invisible during rubbing. Missed areas only become visible after drying, making them easy to identify and analyze.

OPTIMIZATION

DesiCoach® Decolorizer: During decolorization, the effect of each hand movement becomes visible immediately. This allows movements to be adjusted directly and helps anchor the optimized technique in muscle memory.

Hand disinfection

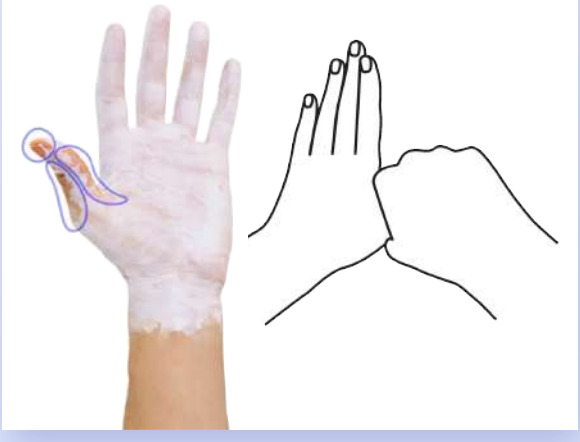
Helpful hand movements

Effective hand movements to close wetting gaps.

Fingertips

Finger surfaces & nail folds

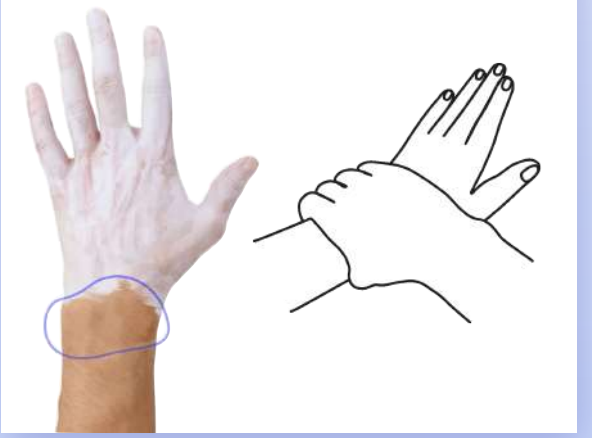
Thumbs



Spaces between fingers

Backs and palms of hands

Wrists



OBJECTIVE 3

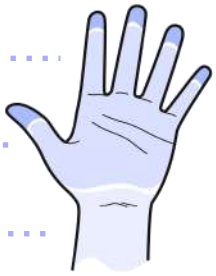
The correct sequence

During rubbing, the disinfectant gradually evaporates. Critical skin areas should therefore be covered early, while sufficient liquid is still available.

Germ density is particularly high under the fingernails. At the same time, fingertips, nail folds and thumbs are among the areas that are especially difficult to cover. That is why the rule is: **critical areas first**.

This learning objective is about developing an individual routine in which critical skin areas are reached early and with enough liquid.

1. **First disinfect fingertips, nail folds and thumbs**
2. **Then cover fingers, spaces between fingers, palms and backs of hands**
3. **Do not forget the wrists**



Germ density on the hands [17]

- Under fingernails: **61.370 CFU/cm²**
- Palm: **850 CFU/cm²**
- Back of hand: **250 CFU/cm²**
- Spaces between fingers: **220 CFU/cm²**

CFU = colony-forming units

Analyzing the result with DesiCoach®

After decolorizing, it is worth taking a closer look: Were all areas reached in time and completely, or should the technique still be adjusted?

RESULT CHECK

DesiCoach® Decolorizer: Color residues are important clues that can have different causes. Here's what they may indicate:

- **Delayed coverage:** If residues remain, for example in hard-to-disinfect areas such as nail folds and fingernails, while the surrounding skin has decolorized well, this indicates delayed coverage. These areas should be included right at the beginning of disinfection in the future.

- **Wetting gap:** A wetting gap can usually be recognized when a larger area that is normally easy to disinfect has not been decolorized. Review your movements once more and consider which hand movements will help you close these gaps best in the future.

- **Insufficient dosage amount:** Remaining white lines in skin folds can indicate that too little Decolorizer fluid was used. Make sure to use a sufficient dosage amount. The same amount of Colorizer and Decolorizer should be used.

- **Damaged skin:** Try this test: If color residues can be easily removed with DesiCoach® Decolorizer, hand disinfectant or water, the cause is probably the technique. However, if they remain difficult to decolorize even after this additional treatment, this may indicate dry or damaged skin. In this case, good hand care is essential, because healthy, supple skin supports effective hand disinfection.

IMPORTANT

If your hands become dry during regular hand disinfection before the manufacturer's declared contact time has elapsed, more disinfectant must be applied to keep all areas wet for the full contact time.

OBJECTIVE 4

Avoiding drip losses

Dripping disinfectant should be avoided for two reasons:

1. If too much disinfectant drips off, the remaining liquid may not be enough to keep the hands fully covered for the declared contact time.
2. Drip losses require extra disinfectant to maintain effectiveness. This increases consumption and may put additional stress on the skin, as alcohol mobilizes skin lipids.[17][18]

How can dripping be avoided?

Dripping can be effectively reduced by training a technique in which an appropriate amount of disinfectant is dispensed into the center of the cupped hand and distributed while the hands are held horizontally.

TIP

In our experience, the following sequence works well. First, the liquid is briefly distributed across both hands before the actual rub-in steps begin. Take a moment to develop and test a sequence that works best for you.

Dispense the liquid into the cupped hand. Keep fingers and thumb slightly overlapping and firmly closed.

Place the palm of the other hand under the hand holding the liquid. Let part of the liquid drip from the upper hand into the lower hand and briefly spread it.

Switch hand position and distribute the liquid between the palm and the back of the hand.

Continue with further rub-in steps.

5

HYGIENE SESSIONS

Adding the practical part in no time

DesiCoach® was developed as an efficient training tool to make hand disinfection training time-saving, motivating and highly effective. Depending on the training and use concept, two product variants are available.

VARIANT 1

Training in groups

DesiCoach® 4Groups: Many of our customers use DesiCoach® directly after their regular hygiene instruction. The idea: theory first, then practice. The training sets are simply handed out, and all participants train together in parallel. An accompanying presentation guides the group through the training step by step.

The benefits: No separate appointment is needed, the mandatory training becomes more engaging through the practical part, and even larger teams can train in just a few minutes. The exchange within the team strengthens team spirit and supports compliance at the same time.

VARIANT 2

Self-guided training

DesiCoach® 2Go: The individual training sets are designed for self-guided hand hygiene training without the need for a scheduled session. An interactive online guide leads participants through the training step by step, provides useful tips and shows each participant their individual result. Participation and group results are recorded anonymously on an evaluation page.

The benefits: Online-guided practical training opens up new opportunities for hygiene training that can be carried out independently – anytime, anywhere: for medical and non-medical staff, temporary staff, trainees or students, and also as a practical module in e-learning courses, as catch-up training or as a giveaway. Automatic digital documentation saves hygiene officers valuable time and provides audit-ready verification with very little organizational effort.

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FAQs

Questions & Answers

Does the system require special equipment such as UV lamps?

No. DesiCoach® works under normal lighting conditions. Unlike fluorescent dyes, which only become visible under artificial black light, DesiCoach® uses a directly visible white coloring. This eliminates the need for UV boxes, long waiting times during training and darkened rooms. The training can be carried out anywhere - even outdoors.

How many people can be trained at the same time?

A DesiCoach® training consists of Colorizer and Decolorizer, packaged in handy Stickpacks (sachets). Two product variants are available, each containing a different number of trainings: DesiCoach® 4Groups for joint training in groups and DesiCoach® 2Go for self-guided training with an online guide.

Since each person trains with their own Stickpacks, in principle any number of participants can be trained at the same time, depending on the number of available sets.

How long can DesiCoach® be stored?

When stored properly - cool, dry and protected from light - DesiCoach® can easily be kept for several years.

How skin-friendly is DesiCoach®?

The formulation is free from substances with skin-irritating hazard statements, fragrance-free and vegan.

Is DesiCoach® visible on all skin tones?

Yes. Wetting gaps are clearly visible on both light and dark skin tones. However, a sufficient amount of liquid must always be applied to achieve good contrast.

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.

Which disinfectants is DesiCoach® comparable to?

DesiCoach® uses a similar base formulation to most liquid alcohol-based hand disinfectants. The insights gained during training can therefore be transferred well to everyday practice.

Unlike classic UV systems, which primarily reveal wetting gaps, DesiCoach® also trains the feel for the individually appropriate dosage amount. This dosage training is designed for liquid disinfectants. Limitations apply if gels or foams are used in everyday practice, as they have a different flow behavior and volume. In these cases, the dosage amount cannot be transferred directly.

Practicing the right rub-in technique and recognizing wetting gaps, however, can be transferred to all product forms.

Why does the DesiCoach® Colorizer become visible with a delay?

The coloring develops fully after the liquid has dried. This means trainees cannot yet see during the rub-in time whether wetting gaps occur - just as with normal hand disinfectants. The Colorizer therefore shows an honest status quo result, which can then be specifically optimized with the Decolorizer.

IMPORTANT: Wait until the color has fully developed - also between the fingers - before analysing the result.

The hands are barely colored despite using the correct dosage amount. What happened?

This can have several causes:

1. Check whether too much liquid dripped off during application.
2. Make sure the DesiCoach® Colorizer was shaken thoroughly before use.
3. Using DesiCoach® directly after applying hand cream or disinfecting your hands can affect the coloring. In this case, wash your hands and start again.

Some liquid splashed onto clothing. What should I do?

Splashes can usually be washed out easily with water and, if needed, soap. The Colorizer fluid contains a mineral that can often be gently rubbed off once dry. Since the Decolorizer contains plant-based fats, soap is recommended here. After a machine wash, any remaining residues usually disappear completely.

CLEANING NOTE: Do not use the Decolorizer solution for stain removal, as it contains fats.

Can DesiCoach® leave residues on surfaces?

DesiCoach® dissolves well in water. On smooth and sealed surfaces, it can therefore usually be wiped away easily with water.

For porous, unsealed or sensitive surfaces, it is recommended to place protective covers such as paper or protective sheets before the training.

How is participation in the training documented?

With DesiCoach® 2Go, results are automatically collected digitally and anonymously and can be downloaded for documentation. With DesiCoach® 4Groups, ready-made evaluation and participation forms are available for download.

Where can I find suitable training material?

Helpful accompanying materials for hygiene training with DesiCoach® are available online and are regularly updated and expanded.

The training presentation, documentation templates and many other materials can be downloaded free of charge at: **heyfair.de/training**

Any further questions?

We're here to help!

For questions about DesiCoach® or hygiene training,
simply send us an email at:

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