

Protect your tattoo.
Protect your skin.



Recommended
by dermatologists
& tattoo artists

we protect lives
worldwide

Ink in the mainstream: the prevalence of tattoos today

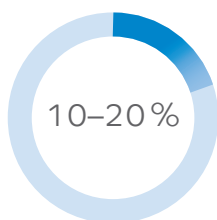
Tattoos have evolved from a niche subculture into a widely accepted form of self-expression. Today, 10–20 % of Europeans have at least one tattoo, with this figure rising to 40 % among adults under 40 years of age.¹ Studies conducted in Western Europe since 2015 consistently report tattoo prevalence rates of 13–21 % in the general population, and the numbers continue to grow.²



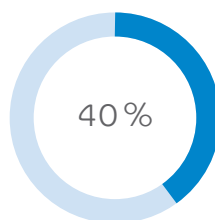
However, not least due to resistant pathogens, **structured hygiene practices and proper wound care are more important than ever** to achieve a cosmetically pleasing result. Although the procedure is generally well tolerated, published data suggests that 0.5–6 %³ of individuals may experience infectious complications, most commonly superficial bacterial skin infections occurring within days to weeks after tattooing. **Tattoo-related infections are likely underreported, and in many cases, the specific micro-organism is never identified.**

Tattoos are everywhere

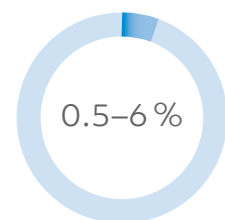
As tattooing moves from subculture to mainstream, structured wound care becomes essential for safe healing.



of Europeans have
at least one tattoo



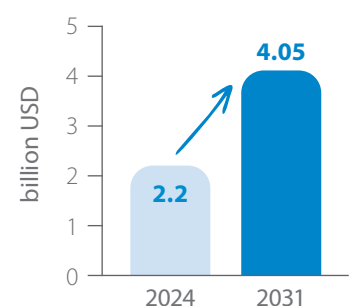
of adults under 40
with tattoos



infection risk

The continuing rise of ink

Reviews from dermatology and epidemiology consistently show that the prevalence of tattoos and permanent make-up across Europe and the USA has steadily increased over recent decades. The tattoo industry reflects this trend. The global market was valued at USD 2.2 billion in 2024 and is projected to grow at a compound annual growth rate (CAGR) of 9.1% through to 2031. Europe accounts for approximately 30 % of the global market, representing a value of around USD 646 million.⁴ As body art continues to gain social acceptance, the tattoo industry across Europe is expanding rapidly, making professional hygiene standards and infection prevention increasingly important.



Tattoos with a purpose



Decorative tattoos

Body art created for aesthetic, personal or cultural expression.



Cosmetic tattoos (permanent make-up)

Semi-permanent dermal pigmentation used to enhance facial features such as eyebrows, eyelids or lip contours.



Medical tattoos

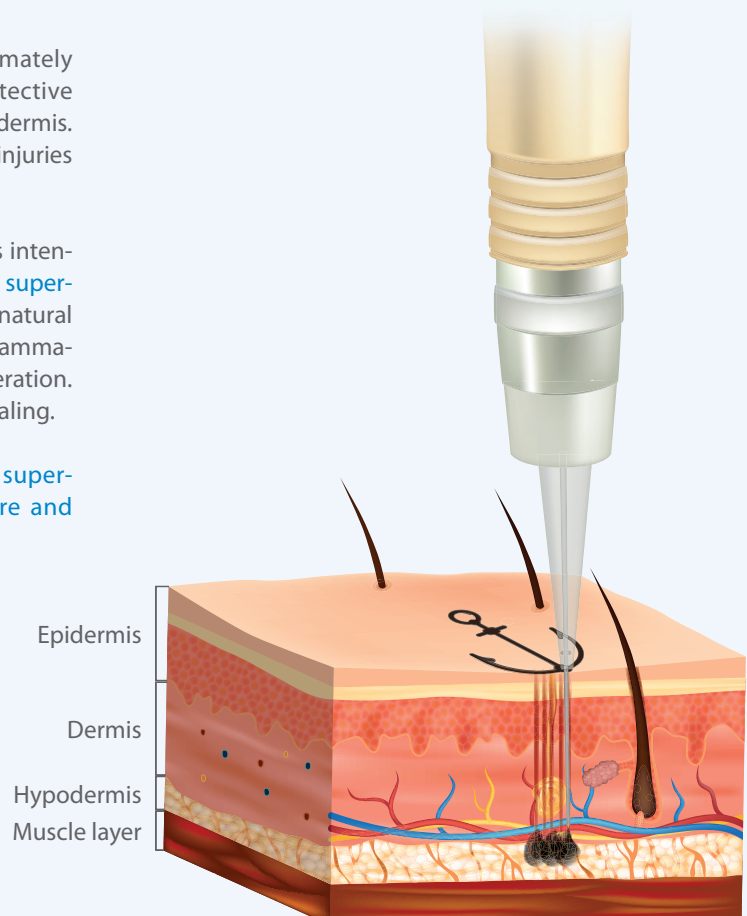
Dermal pigmentation used for medical or reconstructive purposes, for example nipple-areola reconstruction following breast surgery.

What really happens beneath the skin

During tattooing, the needle penetrates approximately 1.5–2 mm into the skin, passing through the protective epidermis and depositing pigment into the upper dermis. This process creates thousands of controlled micro-injuries in the skin barrier.

From a medical perspective, once the skin barrier is intentionally disrupted, the body recognizes the area as a **superficial wound**. The body immediately activates its natural wound-healing response, including bleeding, inflammation, immune system activation and tissue regeneration. These reactions are normal and expected during healing.

A fresh tattoo is medically comparable to a large superficial wound and requires structured wound care and evidence-based antisepsis to heal safely.



Understanding tattoo-related skin reactions

Tattooing is generally well tolerated. However, several types of cutaneous reactions and complications may occur, including:

- mild inflammatory reactions
- infections
- allergic reactions
- non-allergic inflammatory skin conditions



Mild reactions

Short-term mild reactions like swelling, itching and redness (erythema) are common.⁵ Less frequently, purpura or localized swelling may occur. In most cases, these symptoms resolve spontaneously without medical treatment. They typically reflect **normal inflammatory responses to skin trauma and pigment deposition**, rather than true complications.



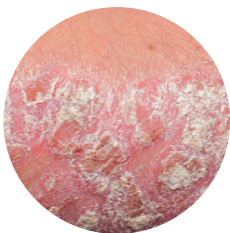
Infections

Infectious complications occur in approximately **0.5–6% of tattooed individuals**. The most common are bacterial infections including impetigo or folliculitis, typically presenting within days to several weeks after tattooing. The most common pathogens are *Staphylococcus aureus*, *Streptococcus pyogenes* and *Pseudomonas aeruginosa*.⁶



Allergic reactions

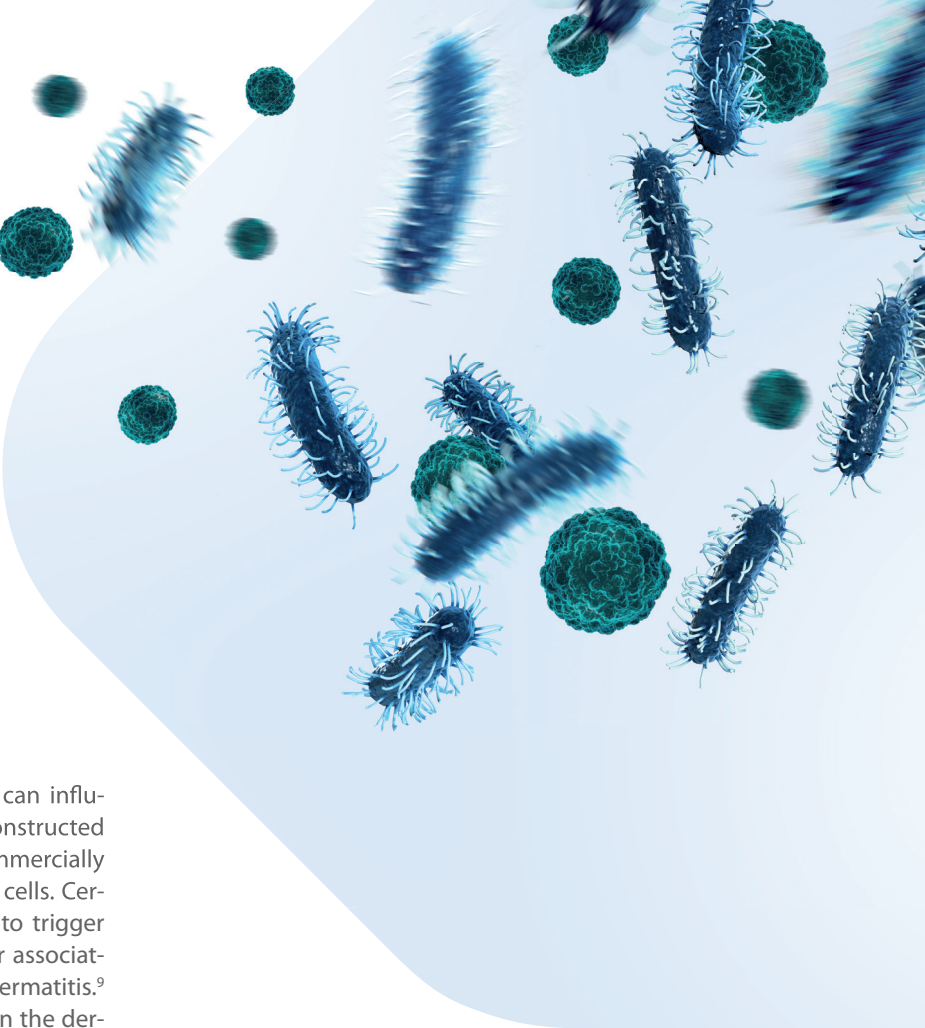
Allergic reactions may be caused by tattoo pigments (ink) or by products used during tattoo aftercare. Reactions related to aftercare products most commonly present as **allergic contact dermatitis**, characterized by itching, redness and skin irritation.⁷



Non-allergic inflammatory reactions

Tattooing may trigger or worsen certain inflammatory skin diseases, including psoriasis, lichen planus and cutaneous lupus erythematosus. Studies also show that 60–90% of tattoo pigments may migrate via lymphatic or blood circulation. Recent research has suggested a possible association between tattoos and an increased risk of malignant lymphoma, a cancer affecting the lymphatic system.⁸

In clinical practice, dermatologists are increasingly encountering tattoo-related complications, including persistent itching, allergic reactions, infections, granulomatous responses and scarring.



Impact of ink on skin healing

Research indicates that tattoo inks themselves can influence adverse skin reactions. Studies using reconstructed human skin models have shown that some commercially available inks can have cytotoxic effects on skin cells. Certain red and black pigments have been found to trigger the release of interleukin-18 (IL-18), a biomarker associated with skin sensitization and allergic contact dermatitis.⁹ Because tattoo pigment is deposited deep within the dermis, sensitization can occur without immediate visible symptoms. Allergic reactions may therefore appear months or even years after tattooing.

These findings highlight that, in addition to mechanical skin injury, the chemical composition of tattoo inks plays an important role in long-term skin reactions. Tattoo ink represents permanent intradermal exposure, making [quality and regulatory compliance essential](#).

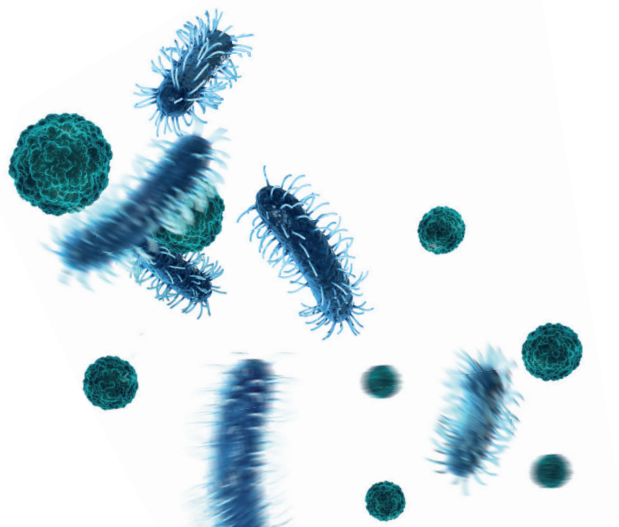
- Since January 2022, the European Union has restricted several hazardous substances in tattoo inks and permanent make-up under the REACH regulation.¹⁰ These restrictions cover specific pigments, preservatives, metals and polycyclic aromatic hydrocarbons (PAH). Certain pigments, such as [Pigment Blue 15:3](#) (a phthalocyanine blue) and [Pigment Green 7](#) (a phthalocyanine green), are now prohibited.¹¹

Pathogens and tattoo safety

The true number of tattoo-related infections is likely underestimated, as many cases are never formally reported or medically evaluated, and the exact pathogen responsible is often not identified. For this reason, the use of a [broad-spectrum antiseptic](#) is recommended, as it provides protection against a wide range of microorganisms. Tattoo-related infections have been linked to a variety of microorganisms,¹² including:

- Bacteria: such as *Staphylococcus aureus* (including MRSA), *Streptococcus pyogenes* and *Pseudomonas aeruginosa*. Many of these organisms are part of the [normal skin microbiome](#), but they can cause infection when the [skin barrier is damaged](#).
- Mycobacteria: including *Mycobacterium chelonae*, *M. abscessus*, *M. fortuitum* and *M. mageritense*.
- Fungi or parasites; fungal infections are rare but increasingly detected.

Typical warning signs (may appear days to weeks after tattooing): [delayed healing](#), [increasing pain](#), [oozing or unusual odour](#).¹³ Proper hygiene and structured aftercare are essential to help reduce the risk of infection and support safe healing.



Professional responsibilities for tattoo artists

Providing a safe tattoo experience includes:

- using REACH-compliant inks
- following national hygiene regulations
- adhering to EN 17169 hygiene standards
- implementing proper cleaning, disinfection and sterilization procedures
- maintaining documented training in hygiene and infection prevention



Recommended tattoo hygiene & antisepsis

Essential hygiene standards

- maintain consistent glove use and proper hand hygiene throughout the procedure
- apply an alcohol-based skin antiseptic, allowing it to dry completely before tattooing
- use single-use needles and grips, or equipment processed through validated sterilization methods
- never reuse ink caps
- always follow local regulations and official product instructions

Why antiseptics matter – and why octenidine?

A tattoo is essentially a **superficial wound**, making proper antiseptic use a key for preventing local infections. Scientific reviews of tattoo-related infections identify **inadequate wound care as a major modifiable risk factor**.

Octenidine is a trusted antiseptic active substance, which offers rapid, broad-spectrum antimicrobial activity against all types of bacteria as well as fungi, like Candida species. Clinical studies have demonstrated **excellent tissue tolerability and positive healing outcomes** when octenidine-based products are used in both **acute and chronic wound care**, with **no serious adverse events reported**.



Know your risks:

While tattoos are generally safe, some individuals have a higher risk of serious infections. This includes people with **chronic liver disease, diabetes, immuno-suppression** (including transplant recipients), **HIV or pre-existing heart conditions**, including those with prosthetic valves. In these cases, additional precautions and diligent aftercare are particularly important.

Tattoo aftercare:

Proper aftercare is essential for infection prevention, optimal healing and long-term tattoo quality. A fresh tattoo should always be treated as a superficial wound that requires structured care during the first days and weeks after the procedure.

Clear guidance from the tattoo artist and consistent aftercare by the client are both crucial to ensure safe healing.

In the tattoo studio



- Gently remove excess ink and blood using sterile water (with or without wash lotion), sterile saline or **octenisept®**
- For clients with increased infection risk, **octenisept®** may be used both in the studio and during home aftercare (prior to applying cream)
- After cleansing, cover the tattoo with a sterile, non-adherent dressing to protect the fresh wound and minimize contamination

At home & ongoing tattoo care



(first 24 hours)

- Remove the initial dressing (as instructed by the tattoo artist; in some cases, the artist may recommend keeping it on for longer)
- After 3–4 hours, gently wash the tattoo up to two times daily using lukewarm water (and **octenisan® wash lotion**)
- Carefully pat the skin dry with a clean (disposable) towel
- Apply a thin layer of **octenisept® protect & repair cream** to support skin regeneration and protect the healing tattoo



(day 2–14)

During the healing phase, the tattoo should be kept clean, lightly moisturized and protected. Recommended routine:

- Wash the tattoo gently once daily using lukewarm water (and **octenisan® wash lotion** if recommended)
- After cleansing, apply a very thin layer of **octenisept® protect & repair cream** 3–4 times daily
- Allow the skin to breathe between applications

Your tattoo healing checklist



Itching & skin changes

- Mild itching is a normal part of the healing process.
- Itching commonly peaks around **day 7** and may last **1–2 weeks**
 - Continued use of **octenisept® protect & repair cream** can help soothe the skin and support regeneration
 - **Do not scratch** the tattoo, as scratching may cause irritation, damage the skin, or lead to pigment loss



What to avoid during healing

- To reduce infection risk and protect the tattoo:
- Avoid **swimming pools, lakes and the sea** during the early healing period
 - Avoid direct **sunlight and tanning beds** for the first 3–4 weeks, as UV exposure can irritate healing skin and fade tattoo pigment
 - Avoid tight clothing that may rub or irritate the tattooed area



When to seek medical advice

- Seek urgent medical advice if increasing redness, swelling, pain or warmth at the tattoo site occurs or persists beyond 24–48 hours

Experience in practical use

Case 1

Client profile

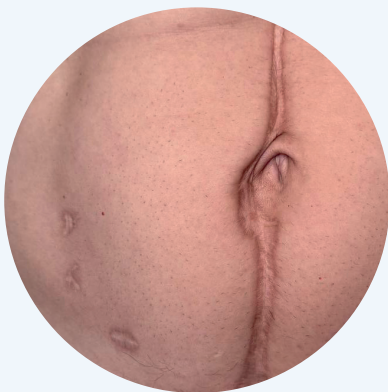
- kidney transplant recipient
- immunosuppressed
- diabetes mellitus
- increased infection risk

Procedure protocol

- pre-procedure skin disinfection using an alcohol-based antiseptic
- **octenisept®** applied immediately after procedure
- film dressing
- no systemic antibiotics

Aftercare

- **octenisept®** protect & repair cream applied 2–3× daily until healing



Post-surgical abdominal scar following transplantation.



Tattoo immediately after the procedure.



Tattooed area after 14 days, showing complete epithelialization, minimal inflammation and well-preserved pigment quality.



Tattooed area after 60 days, fully healed.





Cases 2 and 3

Procedure protocol

- pre-procedure skin disinfection using an alcohol-based antiseptic
- **octenisept®** applied immediately after procedure
- film dressing maintained for 2 days

Aftercare

- days 2–4: gentle washing with luke-warm water and disinfection using **octenisept®**
- **octenisept® protect & repair cream** applied 2x daily until healing

30 days post-procedure results

- complete epithelialization
- stable colour saturation
- sharp pigment definition
- no visible inflammatory signs



Tattoo immediately after the procedure.

Tattooed area after 30 days, demonstrating complete healing.

Your strategy for infection prevention



hand hygiene

Effective hand hygiene is essential before skin preparation, during dressing changes and prior to applying octenisept® protect & repair cream to a fresh tattoo.



desderman® care:

Virucidal alcohol-based (ethanol) hand rub for hygienic hand disinfection with panthenol and vitamin E, without colour or perfume.



desmanol® pure:

Alcohol-based (propanol) hand rub for hygienic and hand disinfection with panthenol, without colour or perfume.



skin disinfection, wound cleansing & antiseptis



kodan® forte colourless

Prior to tattooing, the affected area should be disinfected carefully by using an alcohol-based skin antiseptic to minimize microbial contamination. Apply kodan® forte colourless and allow it to dry completely before beginning the procedure.



octenisan® wash lotion

Mild antimicrobial wash lotion for gentle cleansing of the tattooed area during the healing phase.



octenisept®

octenisept® is an aqueous antiseptic suitable for gentle cleansing and local wound antiseptis immediately after the procedure and during early healing.





barrier support & regeneration

octeni^{sept}® protect & repair cream

This product supports physiological skin regeneration and reinforces the natural skin barrier during the healing phase. Its formulation is designed to help protect stressed, dry and sensitive skin following tattooing. The combination of carefully selected ingredients contributes to balanced skin recovery:

- **panthenol** supports regeneration and improves skin suppleness and elasticity
- **bisabolol** provides soothing and calming properties
- **octenidine** inhibits the regrowth of microorganisms



Key characteristics

- ✓ strengthens the natural skin barrier
- ✓ protects stressed and sensitive skin
- ✓ fragrance- and colour-free
- ✓ dermatologically tested in children from 6 months of age
- ✓ recommended by tattoo artists

schülke Gruppe

we protect lives worldwide



schülke is present with over 20 subsidiaries and production sites in Germany (schülke), France (Bioxal) and Brazil (Vic Pharma). Companies with specific fields of application and markets such as Prosenio GmbH, Vesimin Health and Wet Wipe A/S are also part of the schülke group.*

* This information is as of July 2025.

More information at www.schuelke.com

Some of the images in this brochure were created with assistance of AI. Pictures of case reports were kindly provided by tattoo artists.

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