



The Definitive Tattoo After Care Guide

How to Care for Wounds Caused by Tattooing Your Skin

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POPULARITY OF TATTOOS

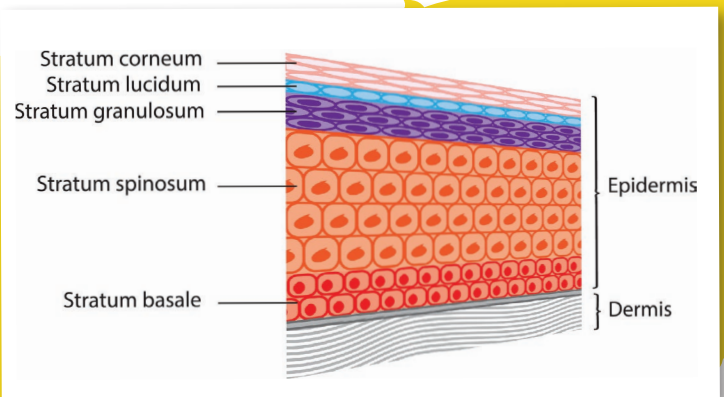
Tattooing is an ancient practice that has become an increasingly popular form of personal expression. By some estimates, as many as 1 in 4 North Americans have at least one tattoo. [1] [2] With the proliferation of tattoos also comes much information – and misinformation. [3] This guide provides factual information from dermatologists and scientific studies about how to care for your skin after receiving a tattoo.

TATTOOING WOUNDS YOUR SKIN

After following the appropriate preparation and sterilization procedures, a tattoo artist will dip a needle into tattoo ink. The needle is then inserted into the two uppermost layers of your skin - the epidermis (outside layer), and the dermis (beneath the epidermis). [2] Modern tattoo machines use a needle that rapidly causes tiny puncture wounds in your skin at rate of 50 to 3000 times per minute. [4] The ink is inserted into the dermal layer of your skin at a depth of 1/64th to 1/16th of an inch. [4] Any ink that has been deposited in the epidermis will not remain permanently as the cells in the epidermis will die and regenerate. It is recommended that you consult with a dermatologist prior to receiving a tattoo if you are prone to keloids, (excess scar tissue growth where your skin has healed), scar easily, suffer from blood clotting disorders or are immunosuppressed. [5] [6]

TATTOO INK

Tattoo ink is made up of dyes, which are called pigments. Many of the ingredients used in tattoo ink pigments are not known to tattoo artists or consumers. Some tattoo ink manufacturers are reluctant to disclose ingredients, claiming that their formulations are proprietary. Why is this of concern to you? Studies have shown that some samples of tattoo pigments contain mercury, heavy metals, cadmium, titanium, iron oxides and aluminum. [7] In response to calls for more transparency, there are a growing number of ink manufacturers who are disclosing the ingredients in their formulations. Ask your tattoo artist for information about the tattoo ink ingredients before receiving a tattoo.



EPIDERMIS & DERMIS

TATTOO AFTERCARE – WHAT TO DO:

Keep it clean. After you carefully remove the protective coating or bandage (if one has been applied by your tattoo artist), gently wash your tattooed skin with soap and cool to warm water. [7]

Keep it moist. Doctors now recommend that you keep a wound moist to aid healing. Studies have shown that wounds healing under moist conditions healed 50% faster than wounds healing under dry conditions. At one time, doctors recommended that wounds should be exposed to air and kept dry, but recent scientific evidence and clinical research has shown this advice to be incorrect. Surgeons keep post-operative wounds moist and so should you. Moist healing protects the delicate tissue and encourages new cell growth. [8] [9]

Apply an ointment. Use an ointment that helps retain your skin's natural moisture, while protecting it. Look for an ointment that contains petrolatum, white petrolatum, mineral oil, olive oil or zinc oxide. These ingredients form a protective barrier on the outside of your skin and help prevent infection. [10] Of these ingredients, petrolatum is the wound dressing of choice following many surgical procedures because it reduces water loss in your skin by 99%. [11] Petrolatum works well for tattooed skin because it stays on the very top layer of your skin and is not absorbed into the lower layers of your skin where the tattoo ink has been deposited. [12]

Treat for pain and itch. If your wound is painful and itchy, the temptation to rub and scratch it could damage your skin. Apply an ointment with medicinal ingredients that provide temporary relief from pain and itch. Look for the Health Canada NPN number on the packaging to ensure you are purchasing a product with scientifically proven ingredients.

Maintain a healthy diet and lifestyle. Your skin is your body's largest organ. Did you know that stress and nutrition can affect the body's healing process? [13]

"TREAT FOR PAIN AND ITCH"

TATTOO AFTERCARE – WHAT NOT TO DO:

DO NOT let your tattooed skin dry out. Keeping your skin moist will help it heal more quickly [8]

DO NOT scratch or rub your tattooed skin. Scratching or rubbing may further damage your skin.

DO NOT allow scabs to dry out. Wounds heal much better under moist conditions. [8] [14]

DO NOT allow bandages to 'stick' to the wound. Do not use a bandage unless your tattooed skin will be exposed to dirty environments. [15] If a bandage or dressing becomes stuck on a wound, tearing it off will further damage the skin and prolong healing. [8]

DO NOT apply an antibiotic ointment unless your wound is infected. Antibiotic ointments should only be used if you have an infection. If infection is suspected, visit your doctor. [8]

DO NOT expose your tattooed skin to direct sunlight. UV rays and radiation from natural and artificial light can, over time, break down the pigments in the ink and cause the colours to fade. Always apply sunscreen or cover your tattoo when out in the sun for prolonged periods of time [16]

DO NOT swim in chlorinated or salt water until your wound has healed. Swimming with open wounds can let harmful bacteria and other germs into your skin, increasing the risk of infection. [17] [18]



“WOUNDS HEALING UNDER MOIST CONDITIONS HEALED 50% FASTER”



WHAT TO EXPECT?

YOUR BODY'S NORMAL RESPONSE

As soon as the tattoo needle punctures your skin, your body reacts to the wound and mounts an immune response to the presence of the ink (a foreign substance). The good news is that as soon as your skin is wounded, it begins to heal. In the absence of complications, your tattooed skin should heal within 2 – 3 weeks. [5] During the healing process, you may experience some or all of the following reactions and symptoms:

Slight bleeding. This is a common symptom immediately following tattooing. [2]

Fluid discharge. A discharge of fluid from a wound is a normal part of healing. As healing progresses, the amount of discharge decreases. [13]

Inflammation and swelling. The body is flooding the wound with blood and plasma, helping to keep the wound moist, bringing nutrients for healing and white blood cells to help control bacteria in the wound. [13]

Raised lines. There may be raised lines along the ink lines of the tattoo artwork. [5]

Changes in colour. Your skin around your fresh tattoo may look reddish and the lines of the tattoo will become raised. The wound turns from red to pink as cells regenerate. [13]

Warmth, tenderness, sensitivity and pain. Your skin may be warm and sensitive to the touch and will likely hurt. [5]

Itching. This is a normal part of the healing process. [2] Itching can be soothed with the application of a healing ointment that contains medicinal ingredients to help with pain and itch.

Scabbing. The formation of a scab is your body's natural response to a wound and aids in successful healing. Keep the scab moist, not dry. [19]

WHEN TO SEEK MEDICAL ATTENTION?

Abnormal symptoms

If you experience intense pain, abnormal or exaggerated swelling, excessive bleeding or oozing, headaches or fever, contact your doctor or a health care professional as soon as possible.

Infection

Although risk of infection after receiving a tattoo has decreased, you should be aware that tattooing can be a vehicle for infections such as Hepatitis B & C, HIV and other viral or bacterial infections. If your skin shows sign of infection after receiving a tattoo, you should consult with your doctor or health care provider. [3] [7]

Allergic Reactions

It is possible that your body will have an allergic reaction to the pigments used in tattoo ink. Red pigments appear to be the most allergenic. Ask your tattoo artist if he/she knows what ingredients are used in the inks before you receive a tattoo. If you experience photosensitivity (a painful response to sun) or abnormal pain in response to the tattoo ink, contact your doctor or a health care professional as soon as possible. [7]

“TATTOOING
WOUNDS
YOUR SKIN”

WHAT WILL CAUSE THE APPEARANCE OF MY TATTOO TO CHANGE?

To dispel a myth, there is no scientific evidence that indicates tattoo ink may fade as a result of petrolatum or other oil-based ointments applied to the surface of your skin. So what causes tattoos to appear faded, blurred, distorted or less colourful after they are first inked?

Sun and Radiation

UV rays and radiation from both natural and artificial light exposure over prolonged periods of time may cause some pigments in the tattoo ink to be broken down. As a result of such light exposure, although quite rare, colour can actually fade away from your tattoo. Wear sunscreen or cover your tattoo when in the sun for prolonged periods of time. [16] [2]

Ink in the Epidermis

When your wound is healing, the cells of the epidermis regenerate and form new skin. Some of the ink deposited in the epidermis may be visible for up to a week, but this ink will disappear as those cells die. Only the ink deposited in the dermis remains. [5]

Ink Too Deep in the Dermis

We see the tattoo through the layers of our skin. If the ink is deposited too deep in your skin or beneath the dermis, the additional layers of skin may cause it to appear distorted or faded. [5]

Genetics and Immune System Response

How your skin heals and how your cells capture the ink depends on your body's unique physiology. Also, it is possible that an immune system reaction to the tattoo ink will cause some dermal cells to die. Dermal cells usually permanently hold the ink, but if these cells die, the body's immune response will 'swallow' up these cells - and the ink will disappear along with the dead cells. [16] [20]

"... NO SCIENTIFIC EVIDENCE THAT INDICATES TATTOO INK MAY FADE AS A RESULT OF PETROLATUM..."

Ink Pigment Decomposition

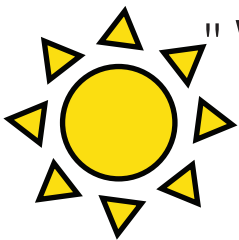
Tattoo ink pigments deposited in your skin could breakdown over time and fade or disappear completely. Since many tattoo ink manufacturers do not disclose all of the ingredients, it is difficult to predict which ink will last longer and resist decomposition over time. [16]

Ink Diffusion or Blow-out

Ink diffusion or "blow-out" occurs as a bluish or dark blurry halo that surrounds the tattoo after completion. Ink diffusion can also appear as a streak or leaking out of the ink from the tattoo. This discolouration occurs when tattoo pigments spread out into the subcutaneous fat beneath the dermal skin layer. It may be caused by ink deposited too deep in your skin, but the cause is unknown in many cases. [5]

Scarring

The condition of your uppermost layer of skin is like a window to your tattoo. If you tend to scar easily and have had keloids (excess scar tissue growth where your skin has healed), tattooing your skin may cause scarring. [6] If your skin is scarred, scratched, or permanently marked, your tattoo may appear dull, faded or distorted. [3] [7]



" WEAR SUNSCREEN OR COVER YOUR TATTOO WHEN IN THE SUN FOR PROLONGED PERIODS OF TIME "



TATTOO REMOVAL

A common complication following tattooing is regret. [7] Laser therapies are making tattoo removal possible, but there is a common misconception that tattoo removal is easy. Laser tattoo removal is expensive and may require multiple treatments to eliminate or fade a tattoo. The plain truth is that some colours and inks are difficult to remove (especially yellows and purples), and complete removal of your tattoo can never be guaranteed. [16] [20] [21] Side effects of laser tattoo removal may include scarring, lightening or darkening of the skin, ink darkening, allergic reactions and changes in the texture of your skin. [21] Given that the removal of tattoos requires high-powered lasers, which can damage your eyes in the absence of adequate protection, always consult a physician with specialized training in laser use.

AUTHOR'S PROFILE

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Dr. Jason K. Rivers is a clinical professor of dermatology and a past director of the dermatology residency training program at the University of British Columbia. Currently Dr. Rivers practices medical and cosmetic dermatology at Pacific Dermaesthetics in Vancouver, BC. Dr. Rivers and the Pacific Dermaesthetics team have many years of experience using advanced medical-grade lasers to safely and effectively remove tattoos. Dr. Rivers' experience in aesthetic medicine spans more than 22 years and he has been invited as a key speaker to present on both medical and cosmetic dermatology topics at national and international symposia. He is currently the President of the Canadian Society for Dermatologic Surgery, an organization whose membership is comprised of dermatologists with dual expertise in skin disorders and aesthetic medicine.

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