

Ornamentation 2

Health risks

Tattoos

The process — which is done without anesthetics — causes a small amount of bleeding and slight to potentially significant pain.

Know the risks

Tattoos breach the skin, which means that skin infections and other complications are possible, including:

- Allergic reactions. Tattoo dyes — especially red, green, yellow and blue dyes — can cause allergic skin reactions, such as an itchy rash at the tattoo site. This can occur even years after you get the tattoo.
- Skin infections. A skin infection is possible after tattooing.
- Other skin problems. Sometimes an area of inflammation called a granuloma can form around tattoo ink. Tattooing also can lead to keloids — raised areas caused by an overgrowth of scar tissue.
- Bloodborne diseases. If the equipment used to create your tattoo is contaminated with infected blood, you can contract various bloodborne diseases — including methicillin-resistant *Staphylococcus aureus* (MRSA), hepatitis B and hepatitis C.
- MRI complications. Rarely, tattoos or permanent makeup might cause swelling or burning in the affected areas during magnetic resonance imaging (MRI) exams. In some cases, tattoo pigments can interfere with the quality of the image.
- Medication or other treatment might be needed if you experience an allergic reaction to the tattoo ink or you develop an infection or other skin problem near a tattoo.

Make up

Source: Cure Joy

In a world where your life is judged by how great you look in your Facebook posts and Instagram pics, there is a constant expectation to look your best all the time. Wanting to always be selfie-ready, however, comes at a price. The makeup industry has been telling women for years how a little foundation and dash of mascara can liven up your face

instantly. While that may be true, applying makeup every day can have several harmful side effects on your skin and body.

1. Headaches

Chemicals like Diazolidinyl urea and DMDM Hydantoin, both of which tend to release formaldehyde, are a common ingredient in many cosmetic products and are used as an antimicrobial preservative. These chemicals have been known to cause headaches, irritation of the mucous membranes, and cause damage to the eyes. If you have been suffering from headaches and can't figure out why, try going easy on the makeup for a few days to see if the headache goes away.

2. Hair Problems

With changing trends in fashion, there is also a wave of hair trends that comes along. Hair products like hair gels, hair serums, shampoos, conditioners, and hair sprays contain several harmful chemicals which set your hair the way you want, but end up damaging your hair in the long run. Extensive use of chemical based hair products could lead to dandruff, scalp redness, thinning of hair, and even loss of hair. Long term use of hair color could also lead to hair discoloration.

3. Acne

This is a common side effect of makeup that most women would have experienced. Your skin is as much a part of your body as any other organ. It also needs to breathe and grow. When you cover your skin with makeup, you also end up clogging it. Some types of makeup which are in the form of liquids and creams clog the pores in your skin. This leads to the formation of blackheads, which when not cleaned regularly can form acne. So make sure you clean your makeup thoroughly with a natural cleanser before going to bed.

4. Skin Allergies

Chemicals known as Parabens which include ethyl-paraben, butyl-paraben, and isopropyl-paraben are used as preservatives to prevent bacterial growth in cosmetics. Parabens can cause various allergic reactions like skin irritation, blotches, and blemishes on the skin. Another common allergen in cosmetics is Salicylate which can cause an outbreak of painful rashes or hives if you have sensitive skin. In many cases, the allergic reaction is not apparent until the symptoms become severe. Read the label for parabens before you buy.

5. Eye Infections

Eye makeup is used extensively even by women who don't use heavy makeup. But it's important to remember that your eyes and the skin around them is the most sensitive area of your face. Layers of eye makeup can be damaging to your eyes as it also slips into your eyes through the corners causing irritation. Too much mascara and eyeliner inhibits the growth of eyelashes and also becomes a breeding ground for bacteria which could lead to irritations and infections.

6. Infertility

Skincare products and deodorants are directly absorbed by your skin, so it's very likely that the chemicals used in these products also seep into your body. A study conducted on rats found that butyl paraben adversely affects the secretion of testosterone and the function of the male reproductive system.

Though the consumers of cosmetics are majorly women, it's still important to note the adverse effects parabens can have on the reproductive system. Parabens are widely used in the skincare industry and even products labelled natural could have parabens.

7. Premature Ageing

When you use skin products for a longer period of time, the chemicals present tend to permanently damage your skin. With time, you could begin to see skin ageing signs like wrinkles or patchiness on your face and body. While makeup does help you hide or cover flaws in your skin, the long term effects could be counterproductive. Also, considering how big the anti-ageing products market is, cosmetic companies have no incentive to reduce the ageing effects of makeup.

8. Hormonal Imbalance

Prolonged use of cosmetics can have an impact on your endocrine system and interfere with the functioning of the thyroid gland. Triclosan is a commonly used chemical compound and can be found in products like acne-removal scrubs and deodorants to keep them free of germs. With regular use, triclosan gets absorbed and accumulated in your body and affects the thyroid gland causing an imbalance in the hormonal secretions. This could lead to thyroid related conditions like headaches, weight gain, and depression.

9. Cancer

Many of the chemical based cosmetics available in the stores today contain toxic ingredients that could cause cancer. With regulations in place, there is testing being done on the ingredients before the products can be sold. However, cosmetics companies need

only prove that there will be no immediate harmful results. So there is no conclusive research done on the long-term effects of all the ingredients. Try to avoid products with the following ingredients.

- Formaldehyde and formaldehyde-releasing preservatives (quaternium-15, diazolidinyl urea, imidazolidinyl urea, DMDM hydantoin, and 2-bromo-2-nitropropane-1,3 diol)
- Phenacetin
- Coal tar
- Benzene
- Untreated or mildly treated mineral oils
- Ethylene oxide
- Chromium
- Cadmium and its compounds
- Arsenic
- Crystalline silica (or quartz)

10. Skin Discoloration

Skin products like sunscreens, moisturizers, toners, and creams contain agents that bleach or darken the skin. Cosmetic products that use poor quality ingredients which have not been regulated can lead to skin discoloration. The effect could be patches, pigmentation, uneven skin tone, redness, and freckles. Though your skin is meant to protect you, it is also very sensitive and needs to be treated with care. So avoid using chemical products for your daily skincare routine.

Using chemical based cosmetics regularly can have adverse effects on your skin and could even lead to permanent damage. The best way to avoid these side effects of makeup is by reducing the use of cosmetics and switching to natural or herbal products.

Jewellery

Cadmium is a **silver-white metal** that is found in the earth's crust. It is extracted during the production of metals such as copper, lead, and zinc.

Cadmium is found in **some foods** and is emitted by using fossil fuels such as coal and oil, smoking cigarettes, and burning waste. It is used in batteries, craft glazes, and metal coatings.

When shopping for jewelry, do you consider what metals make up earrings, bracelets, rings, and other shiny items? A report by the Center for Environmental Health (CEH) in California detailed that cadmium was present in numerous jewelry items tested from stores including Ross, Walgreens and Nordstrom Rack [1]. The amount of cadmium, a toxic heavy metal, ranged from 40-100% in the items testing positive.

Cadmium in Jewelry - Not All That Glitters is Gold

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Is Cadmium Allowed in Jewelry?

Surprisingly, there are no restrictions on the amount of cadmium allowed in adult jewelry in the United States. There is a limit of 0.03% cadmium in children's jewelry in California, a result of a settlement in 2011, after it was found at high levels in jewelry marketed toward pre-teens [2]. Children are more likely to be exposed to cadmium in jewelry as they might swallow or chew on the metal pieces. The European Commission banned cadmium in all jewelry sold in Europe starting in 2011 [3].

Why is Cadmium in Jewelry?

At some point cadmium became a popular replacement for lead in jewelry, likely due to an increase in lead restrictions. Cadmium is used to add mass and weight to jewelry and can add a shiny finish. Cadmium has a lower melting point than metals such as zinc, reducing the energy required to melt it into shape.

Why is Cadmium Dangerous?

Cadmium is a dangerous heavy metal and a known carcinogen [4]. The Agency for Toxic Substances and Disease Registry (ATSDR) lists cadmium as the number 7 most significant threat to human health, based on its frequency, toxicity, and potential for human exposure [5]. Cadmium has a half life in the body around 10-30 years, meaning that a single exposure event can stick around for nearly a lifetime. As we age, cadmium body burden slowly increases. Cadmium primarily targets kidneys and bones, but can also be detrimental to reproductive health. Although inhalation is the most dangerous

route of exposure (10-50% absorption), ingestion (2.5-5% absorption) and dermal (0.5% absorption) exposure are also dangerous, especially at high concentrations.

How do I Protect Myself?

There is no simple way to tell if jewelry contains cadmium or not just by looking at it. Buying jewelry that is made locally or its metal content verified by the retailer can reduce the risk of cadmium exposure. Non-metal decorative items such as ceramic, leather, plastic, or fiber can be worn instead. ZRT Laboratory offers two ways to test for exposure to cadmium. **Whole blood cadmium is the best indicator of recent exposure (months), while urine cadmium is the best indicator of long term exposure (years).** Overall, it is best to avoid any exposure to cadmium, as it will surely stick around for a long period of time.

- Think quality over quantity. We recommend investing in pieces that are more versatile and can be worn with multiple outfits. And hey, added bonus, you're doing the earth a favor too, by being more sustainable!
- For children, look into alternatives to metal jewelry. Wooden or silicone beads and twine make for an excellent art day, and ensure that children have a beautiful necklace or bracelet to wear that doesn't contain cadmium. They will also be pretty excited when they get to say they made their own jewelry.

Costume Jewelry: (CBS News) Although low-cost jewelry might be saving you a buck, it might come at the cost of you or your children's health.

The Ecology Center, a Michigan-based non-profit organization that advocates for a safe and healthy environment, discovered through recently conducted tests that despite strict regulations, many pieces of costume jewelry contain high levels of unsafe chemicals including lead, chromium and nickel.

"None of these things are things you want to have your child exposed to," Dr. Kenneth R. Spaeth, director of the occupational and environmental medicine center at North Shore University Hospital in Manhasset, N.Y., who was not involved in the study, told HealthPop. "All of these are harmful. Some of them are known to be carcinogens. Many of these are known to be neurotoxic, meaning they can affect brain development."

For the Center's test, posted on HealthyStuff.org, researchers took samples of ninety-nine different children's and adult jewelry pieces from 14 different retailers from stores such as Ming 99 City, Burlington Coat Factory, Target, Big Lots, Claire's, Glitter, Forever 21, Walmart, H&M, Meijers, Kohl's, Justice, Icing and Hot Topic. Using a tool called an

X-ray fluorescence analyzer, they checked for lead, cadmium, chromium, nickel, brominated flame retardants, chlorine, mercury and arsenic. Samples were collected from Ohio, Massachusetts, Michigan, Minnesota, New York and Vermont.

The researchers found that over half of the products had high levels of hazardous chemicals. Twenty-seven of the products had greater than 300 ppm lead, the Consumer Product Safety Commission (CPSC)'s lead limit in children's products. Chromium and nickel, which often cause allergic reactions, were found in over 90 percent of items. Cadmium, a toxic metal that has been the basis for several jewelry and toy recalls according to CBS News, was found in 10 percent of the samples.

*Source: The ZRT Laboratory Blog
Theodore Zava;
Michelle Castillo (CBS news)*

High heels

Injury and pain

Wearing high-heeled shoes is strongly associated with injury, including injury requiring hospital care. There is evidence that high-heel-wearers fall more often, especially with heels higher than 2.5 cm, even if they were not wearing high heels at the time of the fall. Wearing high heels is also associated with musculoskeletal pain, specifically pain in the paraspinal muscles (muscles running up the back along the spine) and specifically with heel pain and plantar calluses (only women tested).

A 2001 survey conducted by researchers from Pennsylvania State University using 200 women found that 58% of women complained of lower back pain when wearing heels and 55% of women said they felt the worst overall back pain when wearing the highest heel. The researchers explained that as heel height increases, the body is forced to take on an unnatural posture to maintain its center of gravity. This changed position places more pressure and tension on the lower lumbar spine which explains why the women complained of severe back pain at a higher heel length.

In a 1992 study, researchers from the University of California, Davis and Thomas Jefferson University wanted to investigate the effects of increased heel height on foot pressure using forty-five female participants walking across a pressure plate in various

heel heights. A Biokinetics software was used to analyze the exact pressure locations on and along each participants' foot. The researchers were able to conclude that an increase in heel height led to an increase in pressure beneath each of the Metatarsal bones of the foot. Additionally, they found that the highest heel heights caused constant pressure that could not be evenly dispersed across the foot.

Plantar flexion of the foot in High Heels

In a 2012 study, Kai-Yu Ho, Mark Blanchette and Christopher Powers, wanted to determine if heel height increased patellofemoral joint stress during walking. The patellofemoral joint refers to the junction where the femur and patella meet. The study consisted of eleven participants wearing tracking and reflective markers as they walked across a 10-meter force plated walkway in low, medium and high heels. The study showed that as the height of the heel increased, the ball of the foot experienced an increase in pressure resulting in increased discomfort levels and peak patellofemoral joint stress. The researchers also mentioned that the long term usage of high heels would lead to repetitive overstrain of the joint which would result in an increase in pain and eventually, patellofemoral joint osteoarthritis and Patellofemoral pain syndrome.

In a 2012 study, researchers examined the risk long time high heel wearers would have in regards to calf Muscle fascicle length and strain. The control group consisted of women who wore heels for less than ten hours weekly and the experimental group consisted of women who wore heels for a minimum of forty hours weekly for at least two years. The experimental group was told to walk down a walkway barefoot and in heels while the control group walked down barefoot as cameras recorded their movements to calculate muscle fascicle lengths. The data showed that wearing heels shortened the length of the medial gastrocnemius (MG) muscle fascicles in the calf significantly as well as increasing stiffness in the Achilles Tendon. The experimental group also demonstrated a larger amount of strain on the muscle fascicles while walking in heels because of the flexed position the foot is forced into. The researchers were able to estimate that when wearing heels, the estimated fascicle strains were approximately three times higher and the fascicle strain rate was approximately six times higher. Additionally, they were able to conclude that the long term usage of high heels can increase the risk of injuries such as strain along with discomfort and muscle fatigue.

Bunions

High-heeled shoes almost always have pointed toeboxes which do not fit around the toes, but displace them from their natural position.

Wearing high-heeled shoes is associated with developing bunions, a deformity of the foot.

Balance control of the body

In 2016, scientists from the Department of Physical Therapy in the Sahmyook University in Korea conducted a study to examine the effects of increased heel height and gait velocity on balance control. Balance control refers to the ability of the body to maintain itself along the line of the center of gravity within a base of support. This must be achieved with minimal postural sway velocity which is the horizontal movement of a body trying to maintain balance when standing still. Wearing high heels narrows the base of support that the body has in order to avoid falling and also restricts the area within which the body must sway. In this study, the participants were told to wear either a low or high heel and walk at a low and high speed on a treadmill. As a result of this experiment, the researchers were able to conclude that as heel height increased, the sway velocity of the bodies increased which also modified the position of the knee joint. Muscles have to realign the entire body, especially the hips along the line of gravity. As the weight of the body shifted forward, the hips were taken out of alignment and the knee joints experienced stress in order to adjust to the shift.

Postural effects

Spinal Column Curvature

In a 2016 study from the Sahmyook University in Korea, researchers wanted to investigate the effects of high heels on the activation of muscles in the cervical and lumbar portions of the spine which refers to the neck and lower back. Thirteen women were recruited to walk down a walkway in three different testing conditions: barefoot, in 4 cm heels and in 10 cm heels. Surface electrodes were placed on the muscle mass of the women's spines as well as their feet to measure the electrical activity of muscles at different points of movement. The results of the study indicated an increase in both cervical and lumbar muscle activation as heel height increased. The cervical spine, the neck, assists in maintaining head stability and postural control in the body. The usage of high heels shifts the body's center of mass which forces the spine to adjust itself in order

to maintain balance. The researchers mentioned that over time these results would increase local muscle fatigue that could lead to muscle swelling, decreased muscle movement and even tissue deformation.

Vein swelling

Further research reveals that another possible consequence of wearing high heels is an increase of pressure in one's veins. Experiments have proven that the higher the heel, the "higher [the] venous pressure in the leg." This means that after repeated use of high heels, varicose veins and other undesirable symptoms are much more likely to appear in the legs. Other research supports these two claims when arguing that wearing high heels can lead to numerous long term effects, including accidental trauma to multiple areas of the body.

[Hair Extensions\colouring\cream](#)

The process can cause what is called traction alopecia—hair loss and balding from the pulling and excess weight. The hair loss is believed to be caused by loosening of the hair shaft from the follicle, as well as by chronic inflammation. Extensions can cause hair tangling, matting and loss of shine, itchiness, and yes, pain, like my patient experienced. They can also cause contact dermatitis and, in rare cases, life-threatening allergic reactions from sensitization to glues, rubbers, or other chemicals used for extension application and removal.

Randee Bank, a petite brunette who goes to the hair salon I use, said she had loved the look of extensions so much that she wore them daily, and was willing to tolerate the headaches. It was when she began to notice several bald spots where the extensions had pulled out chunks of her hair that she finally stopped. A dermatologist told her that because of permanent damage to the hair follicles, her hair would never grow back.

“They’re all a disaster,” Bank says, describing the various methods she had tried over the years. “When you take them out, you look like a rat has chewed on your hair, so it becomes addictive and leaves you with little choice but to put them back in to hide the damage they’ve caused.”

Celebrities, too, may be starting to think twice. Photographs of bald spots on singer Britney Spears and model Naomi Campbell have appeared in the tabloids, and Jennifer Aniston has admitted that her hair had become thin from extensions.

Synthetic wigs and extensions

Basically, synthetic hair consists of plastic fibers that are made to resemble real strands. How good that resemblance is, is another topic! Now, what's more interesting are the materials that manufacturers use to make these hairs in the first place used to make it. You can never know what's inside them. However, the usual ones are monofilament fibers, acrylic, and polyester. All those materials can be lower or higher in quality, but the real danger is in low grade materials that can have very harmful effects.

For example, there are many studies that link acrylic materials to cancer. Also, polyester is known to be of very low-quality and can irritate your skin. Some girls may not experience any negative effects while wearing synthetic wigs or extensions. On the other hand, those who have very sensitive skin could. Wigs, extensions are in a constant contact with your scalp and skin! They are on your face and neck. I don't think that it's healthy to have such low-grade materials around these or any areas. Some synthetic hair was even found to be toxic!

It burns

One of the main issues with synthetic fibers is that they're highly flammable and non-resistant to heat. This can be very dangerous considering that most girls want to use hot tools on their extensions or a wig. When low-quality synthetic hair comes in contact with heat, it can literally burn and melt.

Synthetic Hair Can Cause Irritation to Scalp

The skin on the scalp is a very sensitive area! Why? Because hair covers it completely and does not expose to outside stimulus, unlike other areas of the body. Many girls get rashes and irritation simply from using a strong shampoo, so imagine what poor-quality artificial materials can do.

Synthetic Strands Can Lead to Bacteria and Fungus Growth. Synthetic extensions, and especially wigs do not allow skin on the scalp to breathe which is very unhealthy. The scalp will eventually get very warm and moist. What you get is a perfect breeding ground for bacteria and fungus. This can happen very easily with synthetic wigs because they

cover the entirety of your head. Not to mention all the dirt that builds up from all the sweat.

It's my belief that dolls should be the only ones with synthetic hairs! Real people deserve real hair only.

Colouring/hair dye

Hair dyeing traces its roots to antiquity with evidence of use in ancient Egypt and the Roman Empire. Today, hair dyeing is an estimated \$7 billion industry worldwide. Altering the natural color of hair is popular with both men and women but does have some health risks.

Hair has two major parts - the hair follicle and the hair shaft. The hair follicle is located at the root of the hair and attaches each hair to the scalp. The hair shaft sticks out of the follicle. Hair follicles contain living cells, but hair shafts do not. Hair color comes from the pigment melanin, which is made by cells in the hair follicle. Hair turns gray when the production of melanin decreases or stops.

Hair dyes remove the natural color and/or add new color to the hair shaft. They can be natural or synthetic. Natural dyes like henna are obtained from plants. Synthetic dyes can be divided into two general categories: temporary/semi-permanent and permanent. Temporary dyes only penetrate the outermost layer of the hair shaft and are easily removed with one shampooing. Semi-permanent and permanent dyes reach deeper into the hair shaft. While semi-permanent dyes are removed with 4-12 shampoos, permanent dyes are resistant to shampooing. Permanent dyes cause chemical changes that increase the penetration of the product into the hair, bleach the natural melanin, and create color molecules that get trapped inside the shaft. These chemical changes can damage the hair. Semi-permanent dyes also contain chemicals that can remove melanin from the hair shaft, but they are not as strong and cause less damage.

Permanent hair dyes are those most frequently associated with health risks. These products typically include an alkalizing agent like ammonia, an oxidizing agent like hydrogen peroxide, a primary intermediate such as paraphenylenediamine (PPD), and coupler molecules like resorcinol. The alkalizing agent helps the product penetrate the outer layer of the hair shaft, and the other ingredients cause the chemical reactions that create color molecules inside the hair shaft.

Even when hair dyes are used as directed, harmful health effects are possible. Up to 25 different ingredients in hair dyes can cause harmful skin effects. One of the main culprits is the primary intermediate PPD. Contact with skin can cause irritation including redness, sores, itching, and burning. Occasionally, allergic reactions occur and involve swelling of the face and neck that causes difficulty breathing. These toxic effects can occur immediately or up to a day after contact with the skin.

Gloves should be worn to limit the skin toxicity of hair dye. Many research studies have evaluated the use of gloves to reduce skin reactions from hair dyes, especially from dyes that contain PPD. One study found that nitrile gloves clearly outperform natural rubber latex, polyethylene, and vinyl gloves. Disposable gloves should never be re-used. Wearing gloves does not protect the scalp, neck, forehead, ears, and eyelids.

Some of the ingredients in hair dyes have been suspected of causing cancer, but there are currently no well-done, human studies that show a definite, increased cancer risk.

Unintentional ingestions of dyes by children usually involve small amounts. Temporary hair dyes, like the kind used at Halloween, should only cause minor irritation to the mouth, some nausea, and maybe some vomiting. Toxicity is increased with semi-permanent and permanent dyes because of their alkalizing and oxidizing agents. More severe irritation of the mouth, throat, and stomach would be expected, and more severe vomiting is also likely. Depending on the product, a chemical burn is possible. Even small amounts of products with primary intermediates like PPD can cause life-threatening allergic reactions including swelling of the tongue and throat and difficulty breathing.

If a temporary dye product gets into the eyes, it would be expected to cause minor irritation. Greater injury is possible with semi-permanent and permanent dyes. The FDA reports eye injuries, including blindness, from permanent hair dye. These products should never be used to color eyebrows or eyelashes.

Hair cream\relaxer

Although a lot of people grew up using them, the chemicals in relaxers are doing more damage than you could possibly imagine.

More and more women of colour are waking up to the dangers of relaxers and choosing instead to embrace their natural hair. Many still do not understand the devastating effects that relaxers can have, not only on your hair, but on your health too. Here is the harsh truth about relaxers.

As more women are embracing their natural hair and are a large percentage still regularly use relaxers.

The misconception is that if a relaxer is burning then it's working but in reality, if a relaxer is burning then it is doing more damage than you could possibly imagine.

The harmful chemicals in relaxers seep through our skin and cause untold havoc with our physical health.

Who invented relaxers?

Contrary to popular belief, relaxers were invented by Garrett Morgan not Madam CJ Walker. He was the son of a former slave. In 1910 he was originally trying to create a new lubrication for the sewing machine needle. The lubrication accidentally touched the hair on his arm and he noticed that the hair began to lay straight.

By total accident, Morgan developed a hair topical for black people to chemically force their naturally curly hair straight. He called this invention the "Relaxer."

What are they made of?

Relaxers are made of chemicals that counteract the natural chemical makeup of curly hair. Sodium hydroxide or "lye" is the most hazardous ingredient. The soap company, Certified Lye, cautions users that "substances with large amounts of lye can cause chemical burns, permanent injury or scarring, and blindness. Lye (sodium hydroxide) may be harmful or fatal if swallowed".

Though there are some relaxers, such as Dark and Lovely, African Pride, and Optimum Care, who exclude lye from the ingredient regimen, there are other chemicals used that are still hazardous.

Another ingredient is guanidine carbonate. Chemicalbook.com says that when handling guanidine carbonate “only use in chemical fume hood.” Also, the relaxer ingredient, succinic acid should be kept out of contact with skin, clothes and eyes. Bio-amber, a company that manufactures renewable chemicals, states in their website that “it (succinic acid) may be harmful if absorbed through skin.”

This warning is startling because a relaxer directly comes in contact with the user's scalp.

What are the dangers?

Scientific research has shown there is cause for concern with the use of the ingredients found in Black hair care products. These products enter our body via the scalp and can lead to many complications.

Adverse effects reported by the sample after undergoing the procedure were found to be a high 95.56%, out of which the following are the common adverse effects reported; frizzy hair in 67%, dandruff in 61%, hair loss in 47%, thinning and weakening of hair in 40%, greying of hair 22%, and split ends in only 17%.

Studies show relaxers cause life-threatening ailments such as reproductive problems, heart disease, different forms of cancer, early puberty, fibroids, and mental health disorders. Relaxers have been found to disrupt the chemical balance of our bodies by entering our system via cuts and burns.

Nail polish

The health risks associated with nail polish are disputed. According to the U.S. Department of Health and Human Services, "The amount of chemicals used in animal studies is probably a couple of hundred times higher than what you would be exposed to from using nail polish every week or so. So the chances of any individual phthalate producing such harm [in humans] is very slim." A more serious health risk is faced by professional nail technicians, who perform manicures over a workstation, known as a nail table, on which the client's hands rest – directly below the technician's breathing zone. In 2009, Susan Reutman, an epidemiologist with the U.S. National Institute for Occupational Safety and Health's Division of Applied Research and Technology, announced a federal effort to evaluate the effectiveness of downdraft vented nail tables (VNTs) in removing potential nail polish chemical and dust exposures from the technician's work area. These ventilation systems have potential to reduce worker

exposure to chemicals by at least 50%. Many nail technicians will often wear masks to cover their mouth and nose from inhaling any of the harsh dust or chemicals from the nail products.

According to Reutman, a growing body of scientific literature suggests that some inhaled and absorbed organic solvents found in nail salons such as glycol ethers and carbon disulfide may have adverse effects on reproductive health. These effects may include birth defects, low birth weight, miscarriage, and preterm birth.

Nail polish formulations may include ingredients that are toxic or affect other health problems. One controversial family of ingredients are phthalates, which are implicated as endocrine disruptors and linked to problems in the endocrine system and increased risk of diabetes. Manufacturers have been pressured by consumer groups to reduce or to eliminate potentially-toxic ingredients, and in September 2006, several companies agreed to phase out dibutyl phthalates. There are no universal consumer safety standards for nail polish, however, and while formaldehyde has been eliminated from some nail polish brands, others still use it.

Regulation and environmental concerns

The U.S. city of San Francisco enacted a city ordinance, publicly identifying establishments that use nail polishes free of the "toxic trio" of dibutyl phthalate, toluene, and formaldehyde.

Nail polish is considered a hazardous waste by some regulatory bodies such as the Los Angeles Department of Public Works. Many countries have strict restrictions on sending nail polish by mail. The "toxic trio" are currently being phased out, but there are still components of nail polish that could cause environmental concern. Leaking out of the bottle into the soil could cause contamination in ground water. Chromium(III) oxide green and Prussian blue are common in nail polish and have shown evidence of going through chemical degradation, which could have a detrimental effect on health.

[Body paint](#)

Although a typically safe endeavor, a full coat of body paint can be bad for your health if you're not careful. You can develop heatstroke from full-body paint, since the paint covers your pores and prevents the sweating and cooling mechanisms in your body from working correctly. Also, you must use paint meant for the skin. Acrylic paint, for example, is meant for canvas only -- and for good reason. Acrylic paints may contain

ammonia, formaldehyde and heavy metals, all of which are dangerous if ingested [source: Princeton University].

A well-known example of body paint gone wrong is the story of Buddy Ebsen, the first Tin Man in the film "The Wizard of Oz." Production artists used white clown makeup that they covered with aluminum dust to get the "tin" look for his role. Two weeks later, Ebsen was in the hospital, nearly unable to breathe, his skin tinged blue. Doctors discovered his lungs were coated with aluminum dust. Due to his hospitalization, another actor, Jack Haley, took over the role. This time, the aluminum powder was mixed into the paint instead of brushed on, and he suffered no ill effects save for a severe infection when the makeup got in his eye [source: Harnetz].

Another common fear about body paint is whether a head-to-toe coat can cause a person to suffocate. This likely comes from the James Bond movie "Goldfinger." In the 1964 film, the villain Goldfinger kills character Jill Masterson (played by Shirley Eaton) by covering her in gold paint, causing her death by suffocation. An urban legend spread that Eaton actually died on set from asphyxiation from the same gold paint. However, this is physically impossible, and as of March 2015, Eaton is alive and well. We don't breathe through our skin -- we breathe through our noses and mouths. Therefore, covering your entire body in paint won't cause you to suffocate, no matter what Goldfinger does.

Using paints specifically designed for body use dramatically lessens any health risk, but always test a small patch of skin before covering your entire body with paint, in case you're allergic to some compound in the paint.