



The Henna Page™

ENCYCLOPEDIA OF HENNA

Henna is NOT Black



What is "Black Henna?"

Catherine Cartwright-Jones c 2003

Henna is NOT black. However, there are several things marketed as "Black Henna", and some things believed to be "Black Henna". Some are very dangerous. Some are harmless. When para-phenylenediamine black hair dye is used to make black temporary tattoos, often called "black henna", it can cause blistering, open sores, scarring, and life-long health problems.



PPD "black henna", two weeks after application, with intense itching and open sores

1) Some people make a black temporary tattoo they call "Black Henna" with synthetic black hair dye, containing para-phenylenediamine.

This is NOT HENNA! Black hair dye should never be put straight on your skin, plain, or mixed with other material. Synthetic Black Hair Dye is illegal to put on skin, because that is not approved use. Even when this dye is applied to hair, people must wear gloves, and they try to not get it on the scalp! PPD, para-phenylenediamine can seriously

injure people. Para-phenylenediamine is a strong sensitizer, transdermal toxin and potential carcinogen.

2) "Black Henna" was once a term for indigo, when it was sold as hair dye.

In the 1800's there was no synthetic hair dye. Henna and indigo were used to dye hair. Henna leaves and twigs that had no, or very low, concentrations of Lawsone (the tannin produced by the henna plant) were sold as neutral henna. Henna leaf buds that had high concentrations of Lawsone were sold as Red Henna or Henna. Indigo was marketed as "black henna". If you dye your hair with henna first, and then dye over that with indigo, your hair will be dyed black. If you see a package of "black henna" in a Middle Eastern or Indian grocery it might be indigo, and it might be PPD. If you see a package of black hair dye from an American cosmetic company, it has some form of para-phenylenediamine in it.

3) National Geographic has shown many pictures of people in Amazonia and Africa adorned with black body art.

People see this body art and think it might be "black henna". It is not henna. This body art is created with carbon and the sap of two species of unripe figs that are rare and grow only in the rainforest.

4) There are safe and effective traditional techniques of making natural henna go dark red or dark brown.

Heat and the addition of essential oils such as Tea Tree oil are the safest and most effective darkeners of henna. These may make nearly black stains on hands, but on the rest of the body, the stains will be brown. Henna never leaves "black" stains on arms, legs, backs and bellies!

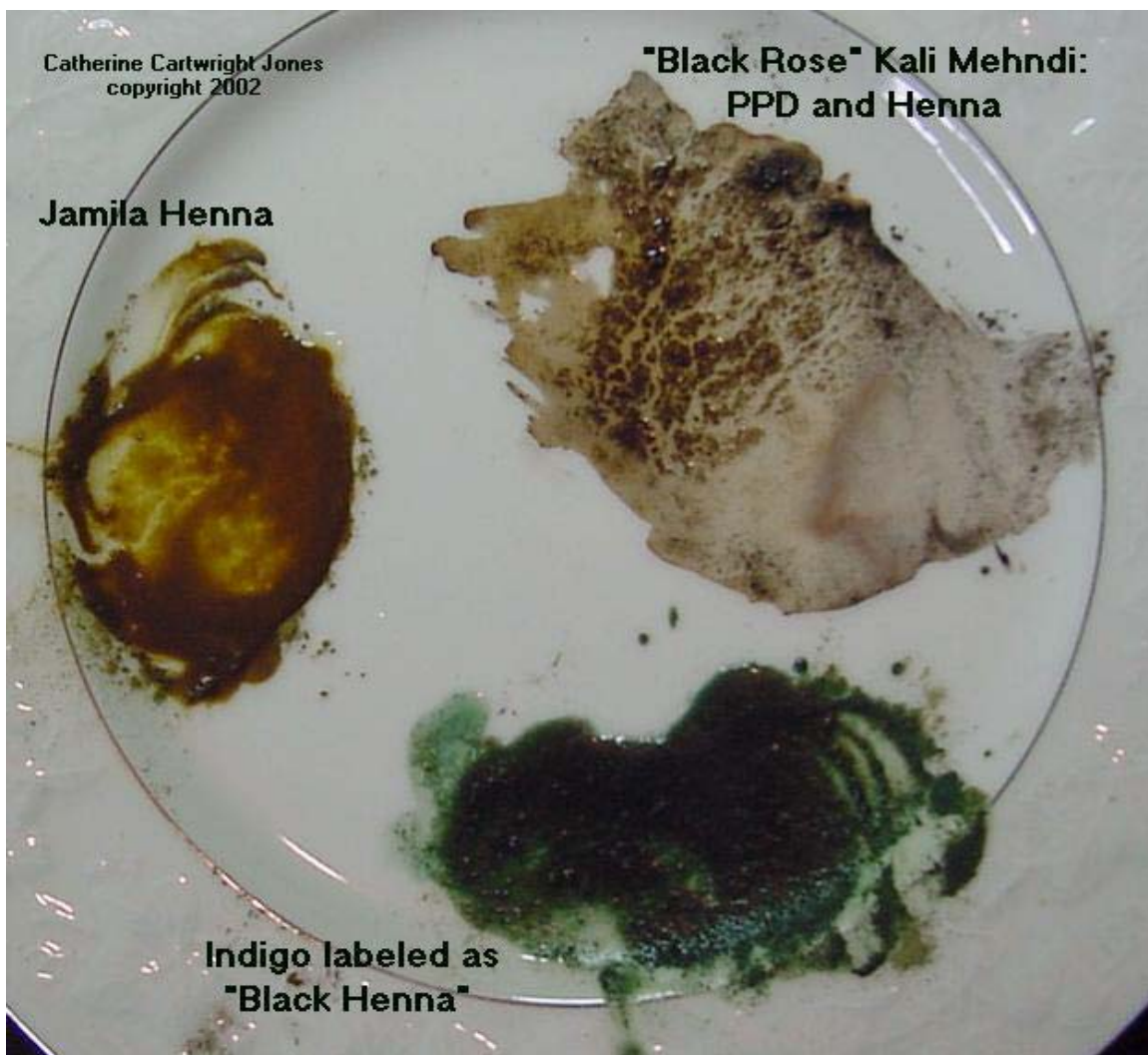
Do you want to find out what is in your box of Henna or "Black Henna"?

If you have boxes of henna and "black henna", mix water into them and watch what happens in about 20 minutes:

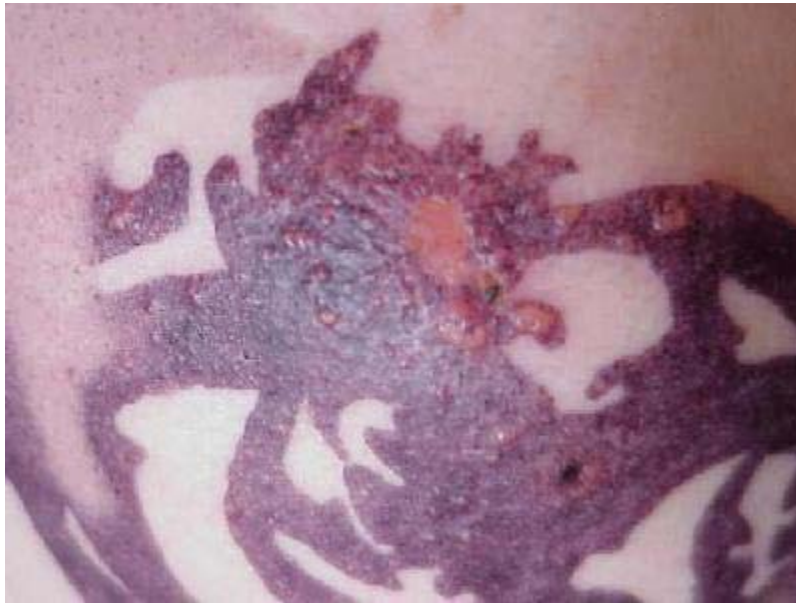
Indigo, which may be in a box called "black henna" is a green plant powder that smells like frozen peas. Mix it with water. If the surface of the mix turns blue in 20 minutes, it's indigo.

"Black henna" mixes with PPD are usually dark brown or black. They don't have much of a smell. Mix that with water. In 10 minutes, black dye will drain out of the mix.

Henna is a green plant powder that smells like hay. Mix that with water and in a few hours, the surface will turn brownish.



Why is PPD "black henna" dangerous?



PPD Black Henna blistering and itching forms open, weeping sores in 3 to 10 days after application.

1) PPD is a strong sensitizer.

A sensitizer is something that your body is naturally allergic to, or may become allergic to. Bee venom is a strong sensitizer. Poison Ivy is a strong sensitizer. You may react to Poison Ivy or Bee Stings with intense swelling, pain, itching, or a full blown reaction the first time you come in contact with them. The more often you touch Poison Ivy or get stung by bees, the more likely you are to become sensitized and have a serious reaction. Extreme sensitivity is life threatening. Some people are born sensitive to PPD. Others become sensitive to PPD. Hairdressers, who handle PPD every day, frequently become so sensitive to PPD that they must wear gloves when handling hair dye or may have to quit their occupation to save their health.

If you become sensitized to PPD, that allergy will never go away and you may become cross-sensitized to many related things. That means other similar things may set off an allergic reaction and make you sick. Hair dye, sun block, cosmetics, even black clothing, may cause an outbreak of itching and hives

2) "PPD, para-phenylenediamine, is not just a sensitizer. It has been shown to be carcinogenic and can harm your health in other ways.

Para-phenylenediamine is a strong sensitizer, carcinogen, and transdermal toxin (it penetrates your skin and then travels through your blood stream and causes damage). It is associated with bladder cancer, asthma, and many other health problems.

Henna is an extremely weak sensitizer. That means it's very unlikely to cause an allergic reaction on anyone. Henna, applied to skin, has not been demonstrated to have adverse health effects.



PPD "black henna" forms itching blisters in the shape of the temporary tattoo in 5 to 15 days after application. These may progress to open sores. The scars will last many months, and may never completely go away.

If your PPD "black henna" tattoo starts to itch and blister, go to the doctor!



PPD "Black Henna" 10 and 20 days after application.

Most doctors know about reactions to black hair dye, but they are not aware that street artists make black temporary tattoos with black hair dye. Tell the doctor that someone painted black hair dye on your skin, and the doctor will understand that you are having a reaction to para-phenylenediamine.

Print out <http://www.smw.ch/pdf200x/2001/2001-13/2001-13-351.PDF>, an article from a Swiss Medical Journal and show that to your doctor. That medical article details the reaction and recommends treatment.

Your doctor may give you something to help stop the itching and reduce the swelling, and that may reduce scarring.

If you have a reaction to your PPD "black henna", you are sensitized (will have strong allergic reactions) to para-phenylenediamine. Ask your doctor to tell you about this! You are sensitized for the rest of your life. There are many products you must avoid because your body will react strongly to them and may endanger your life. If your doctor doesn't know about this, go to an allergist and tell the allergist you have become sensitized to para-phenylenediamine.

How can you tell if a henna artist is using safe henna or dangerous "PPD black henna"?



1) If the stuff they're using is jet black, it's very likely to be PPD.

Most PPD slingers call their stuff "black henna" or "henna" and lie about what's in it. You will NOT get a straight answer just by asking! You'll have to look at the paste yourself. Traditional safe henna paste is khaki green, brownish green, or very dark green. Traditional henna paste smells like spinach, or you may smell fragrances like Pine, Tea Tree Oil, or Ben-Gay from essential oils they're using. PPD doesn't have a smell.

2) Ask them how long you should leave it on.

If an artist tells you to take the paste off in less than an hour, the artist is using PPD. Henna doesn't work that fast. People working with real henna will tell you to leave the paste on more than one hour, and often say, "leave it on as long as you can!"

3) Ask them what color the stain will be when the paste comes off.

If they tell you the stain will be BLACK when the paste comes off and that it will stay black, they're using PPD. Henna will leave an orange stain that will darken to red-brown or dark brown, but it will NOT be black when the paste flakes off. Ask the person to put some on their own skin. Wait 1/2 an hour. If there's an orange stain there, it's henna. If there's a black stain there, it's PPD.

4) Ask them how long the stain will last.

PPD stains typically last more than a week and do not fade to orange. Henna stains last 1 - 3 weeks, fading to orange during that period. There are some safe body art products, such as body paints, that come in black, but they only last 3 days or so. If they say it's black and stays black on arms and legs longer than a week, it's PPD!

5) Ask them what's in the mix.

A reputable henna artist will answer: henna, lemon juice, essential oils. You'll be able to smell them. The artist should be able to show you what they're working with. You should see green plant powder, and safe natural materials. The PPD artist will probably lie. If the artist can't satisfy your questions about "what's in it?" walk away.

There are some body stain products that are marketed as "colored henna" that may be safe and do not contain PPD.

Ask the artist how long the stain will last. If the answer is 3 days or so, the stain may be safe. The safer stains only last a week at most. Ask to see the ingredient list! If you recognize these as the dyes you see in food, like colored cake frosting, they may be safe for you. Sniff it the paste. If it smells vile, don't put it on your skin.

Why do people use black hair dye instead of henna?



1) PPD black hair dye is a no-brainer.

Anyone can walk into a beauty supply store and get Bigen Black Hair Dye. It's cheap. You just mix it with water and use it. Or, you order it off the internet, that seller is handing you black hair dye, repacked or remixed as "black henna". It's easy to stain your skin black quickly with black hair dye. It's also illegal and dangerous!

Staining skin beautifully with henna is an art and science. It takes time and skill to do well! "Fast Buck" artists don't want to be bothered with learning traditional henna.

2) Profits on PPD sold as "black henna" are unbelievable.

A package of Bigen Black Hair dye costs less than \$10. A street artist can use that package to make \$1000 easily in a day. The itching and blistering appear many days after application, so they never see how many people they hurt. But, with that kind of easy money, do you think they care that they're hurting people?



3) PPD looks like a tattoo ... until the blisters and festering sores come up.

People want something that looks like a tattoo. At first, PPD "black henna" may look like a tattoo. Later, there may be itching, blisters, open sores and scarring.



Traditional "red" Henna is Safe!



Some medical journal articles have shown henna may be beneficial for skin, and no test has ever shown that pure henna applied to skin causes harm. Women in over 60 countries have safely used henna for at least 5000 years. Henna traditions are associated with many religions: Muslim, Hindu, Jewish and Christian.

The FDA unconditionally approves henna for use on hair, though it has not extended this approval to henna patterning on skin. Henna art on skin is new to the USA, though it has been practiced for thousands of years in Africa, the Middle East and South Asia.

There are very rare reactions to henna, and these are "paraphenylenediamine sensitivity" reactions. If within three hours of henna application, a person becomes very itchy, and wheezes, or has a tight feeling in the chest, they are allergic to natural henna. The itching does not take the shape of the design, as in PPD "Black Henna", and the onset of the reaction is within hours rather than days. This sensitivity will not leave open sores, scars, or harm a person's future health. However, the person should NOT get henna again!

How do you know if an artist is using traditional safe Henna?



Safe, natural, traditional henna paste is made of things like pure henna, lemon juice, tea, spices, and pure essential oils.

Traditional henna paste is some shade of green. It may be brownish green, khaki, or dark green, but it will look like it came from a plant.

Any artist working with pure, natural, safe, traditional henna will tell you what is in the paste, and you should be able to see and smell it. Henna paste should have a fresh smell. Sometimes henna paste smells like spinach or hay, and sometimes you can smell the spices or fragrant essential oils. You might smell pine, clove, Tea Tree, or other fresh scents. If you smell kerosene or something nasty, don't put it on your skin.

Ask the artist to show you what the henna looks like on their skin. If they have reddish-brown stains, they're working with traditional henna. If they put the paste on their skin and an orange stain remains when the paste is scraped away, they're working with traditional henna.

Published Medical Journal articles detailing the injuries and fatalities that have occurred from Para-Phenylenediamine when used as "PPD Black Henna" and as Hair Dye



Itching red welts and scarring formed after PPD "black henna" temporary tattoo.

Abdulla KA, Davidson NM, "A Woman who Collapsed after Painting Her Soles"

Lancet 1996: 348: 658

"PPD (used in "black henna") is a potent skin sensitizer; it can cause angioneurotic edema, collapse, and renal failure in severe cases"

Al-Tufail, M, Mahier, T., Tate, J., Haq, A., "Rapid Identification of Phenylenediamines in Traditional Hair Dyes by Gas Chromatography-Mass Spectrometry"

Department of Pathology and laboratory Medicine, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia

"commercial hair dye products are known to cause hypersensitivity in certain individuals and several mutagenic phenylenediamines (PPD) found in hair products have been reported to be carcinogenic in animals."

"Ten samples of commercial hair dye had an average p-PD level of 7.7% with individual samples ranging from 0.04 to 66.5%."

Ames, B.N., Kammen, H. O., and Yamasaki, E, "Hair Dyes are Mutagenic: Identification of a Variety of Mutagenic Ingredients"

Proc. Natl. Acad. Sci., USA, 72, 2437 - 2433 1975

PPD is demonstrated to be mutagenic.

Ashraf W., Dawling S., and Farrow L.J., "Systemic Paraphenylenediamine (PPD) Poisoning: a Case Report and Review"

Human and Experimental toxicology 13, 167 - 170 1994

"deliberate or accidental ingestion of PPD itself is associated with muscle damage leading to death in humans"

Children who receive PPD black henna body art are apt to accidentally ingest the PPD!

Averbukh, A, Modai D., Leonov Y, Weissgarten J., Lewisohn G., Fucs, L, Golik A, and Rosenmann, E., Rhabdomyolysis and Acute Renal Failure Induced by Para Phenylenediamine

Human toxicology 8 345-348 1989

"deliberate or accidental ingestion of PPD itself is associated with muscle necrosis leading to death in humans"

Children who receive PPD black henna body art are apt to accidentally ingest the PPD!

Baud F. J. , Gallilot M, Cantineau J, Muszinsky J, Bolo A., Benahmed T., and Bismuth C., "Rabdomyolyse au cours d'une intoxication aigue par la para-phenylene diamine"

Journal de Toxicologie Medicale 4, 279 - 283 1984

"deliberate or accidental ingestion of PPD itself is associated with muscle damage leading to death in humans"

Children who receive PPD black henna body art are apt to accidentally ingest the PPD!

Blohm SG., Rajka G., "The Allergenicity of Paraphenylenediamine"

Acta Dermatolo-Venerologica 1970: 50: 51-4

"Subjects have been shown to react to lower concentrations of metabolic breakdown products of PPD than to the actual PPD molecule itself"

As PPD breaks down in your body, it gets worse, not better.

Broeckx, W. "Cosmetic Intolerance"

Contact Dermatitis 16: 189, 1987

Demonstrates that PPD is a strong sensitizer and use of PPD in cosmetics can result in injury and further sensitizations

Calman CD., "Hair Dye Reaction"

Contact Dermatitis Newsletter 1967; 1:16

Severe cases of immediate type hypersensitivity to PPD described in which the patients developed severe edema, irritation of the eyes and face and also difficulty in breathing

Chemical Data Sheet on 1,4 Phenylenediamine

Uglabs, MSDS, University of San Diego

Chung, K., Murdock, C., Stevens, S., Li, Y, Wei, C, Huang, T, Chou, M., "Mutagenicity and Toxicity studies of P-Phenylenediamine and its derivatives"

Toxicology Letters 81, 1995, 23 - 32 1995

"P-Phenylenediamine has been reported to increase the formation of liver tumors in mice."

Crebelli, R., Conti, L., Carere, A., and Zito, R., "Mutagenicity of Commercial P-Phenylenediamine and of an Oxidation Mixture of P-Phenylenediamine and Resorcinol in Salmonella Typhimurium TA98"

Food Cosmetology and Toxicology, 1981, 19, 79-84
PPD is a mutagen.

Degawa M., Shoji Y, Masuko K, Yoshiyuki H., "Mutagenicity of Metabolites of Carcinogenic Aminoazo dyes"

Cancer Letters 8: 71 – 6, 1979
"P-phenylenediamine is known to be mutagenic"

Devos, Van Der Valk "The Risk of Active Sensitization to PPD"

Contact Dermatitis, 2001, 44, 273 - 275
 Department of Dermatology, University Hospital Nijmegen, The Netherlands
"application of PPD may lead to active sensitization to black clothing, printer's ink, Fax ink, hair dye, fur dye, leather dye, photographic products"

Devecioglu, C.; Katar, S.; Dogru, O., and others, "Henna-Induced Hemolytic Anemia and Acute Renal Failure"

The Turkish journal of pediatrics. 43, Part 1 (2001): 65-66 Libraries: 30
Demonstrates that PPD is the cause of "black henna" injuries, not henna, and that if PPD is applied as a body art it can have fatal consequences!

Edward EK Jr., Edward EK, "Contact Urticaria and Allergic Contact Dermatitis caused by Paraphenylenediamine"

Cutis 1984, 34: 87-8
"PPD elicits not only contact hypersensitivity but immediate-type hypersensitivity." Sometimes you have a PPD nasty reaction sooner, and sometimes you have one later.

Gallo R., Ghigliotti G., Cozzani E., Balestrero, S. "Contact Dermatitis from Para-phenylenediamine Used as a Skin Paint: a Further Case"

Contact Dermatitis 1999: 40:57
Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Garcia Ortiz JC, Terron M, Bellido J, "Contact allergy to Henna"

Int Arch Allergy Immunol 1997 114, 298-299
Demonstrates that PPD is the cause of "black henna" injuries, not henna! Allergic reactions to henna demonstrated to be extremely rare

Greenfield, M. D.O. "A Long Lasting Souvenir"

Courtlandt Forum, June 2001
Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Hashim S., Hamza Y., Yahia B., Khogali F. and Sulieman G, " Poisoning from Henna Dye and Para-phenylenediamine Mixtures in Children in Khartoum"

Annals of Tropical Pediatrics 12, 3 - 6
"Poisoning by a mixture of henna dye and para-phenylenediamine dyes led to the hospitalization of 31 Sudanese children between 1984 and 1989. There was a characteristic clinical presentation. All children presented with an acute and severe angioneurotic oedema and 15 of the cases required emergency tracheostomy for respiratory obstruction. Acute renal failure occurred in five children who recovered after peritoneal dialysis. Mortality was high, all 13 deaths occurring within 24 hours of presentation. Hypotensive shock gave a poor prognosis. It is possible that similar cases may be occurring unrecognized where henna is traditionally used. A

programme of public education and restriction of para-phenylenediamine is urgently required in The Sudan and other affected nations. Ingestion was accidental in 12 children, deliberate in 10 and homicidal in three cases. Cutaneous absorption was likely in the remaining six."

Jappe, Uta ; Hausen, Bj ; Petzoldt, Detlef, "Erythema-multiforme-like eruption and depigmentation following allergic contact dermatitis from a paint-on henna tattoo, due to para-phenylenediamine contact hypersensitivity"

Contact Dermatitis 45, no. 4 (2001): 249-250 (2 pages) Additional Info: Munksgaard International Publishers; 20011000
Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Lava N S , Dollar J, "Hair Dye-Induced Rhabdomyolysis"

Albany Medical College NY
Electroencephalography and Clinical Neurophysiology 98 8 - 40 1996
41 year old woman was admitted with acute renal failure from PPD hair dye application: Cutaneous absorption of PPD from hair dye application caused blistering skin in area of application, then lesions on neck, chest and abdomen. On admission to hospital, she had denuded skin, muscle pain, muscle swelling, confusion, hyponatremic, in acute renal failure and had elevated creatine kinase. Muscle biopsy showed scattered necrotic fibers from PPD. Life-threatening absorption of PPD through skin is unusual but it DOES happen! There were no other risk factors for rhabdomyolysis in her history.

Le Coz, C.J., "Risques des peintures cutanées ou tatouages labiles au « henné noir »"

Revue Francaise d'Allergologie et d Immunologie Clinique Volume: 41, Issue: 5, August, 2001. pp. 504-509.
Establishment and characterization of para-phenylenediamine induced contact hypersensitivity.
*"PPD can cause angioneurotic edema, collapes and renal failure in severe cases"
Demonstrates that PPD "black henna" can cause injury and sensitization, and that children are particularly at risk.*

Le Coz CJ, Lefebvre C, Keller F., Grosshands E.," Allergic contact dermatitis caused by skin painting (pseudotattooing) with black henna, a mixture of henna and p-phenylenediamine and its derivatives."

Arch Dermatol 2000; 136: 1515 - 7
Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Le Coz CJ, Lefebvre C, Keller F., Grosshands E., "Les Tatouages Labiles au "henne Noir": une cause epidemique d'eczema de contact par sensibilisation cutanee a la paraphenylene diamine (PPD)"

Ref Fr. Allergol Immunol Clin 2000; 40 (Suppl 2) : 416
Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Lewin PK, "Temporary henna tattoo with permanent scarification."

Can Med Ass 1999 160:310
*PPD scarring may be permanent!
Demonstrates that PPD is the cause of "black henna" injuries, not henna!
Allergic reactions to henna demonstrated to be extremely rare*

Lestringnant GG, Bener A., Frossard PM., " Cutaneous Reactions to Henna and Associated Additives"

Br J Dermatol 1999; 141: 598 - 600

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Lippert, U.; Lessmann, H.; Struber-Walter, A., and others, "Allergic contact dermatitis due to a henna-tattoo with sensitization to p-phenylenediamine (PPD)"

Allergologie. 24, Part 6 (2001): 261-264 Libraries: 52

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Mohamed M., Nixon R., "Severe Allergic Contact Dermatitis Induced by Paraphenylenediamine in Paint-on Temporary Tattoos"

Australas J Dermatol 2000; 41: 168-171

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Munday R., Manns E., "Muscle Necrosis in Rats Induced by 2-Methoxy-p-phenylenediamine"

Food and Chemical Toxicology 37 1999 561-564

"...it was found that 2-methoxol-p-phenylenedyamine, a component of oxidative hair dyes, causes necrosis of skeletal muscle (gastroenemius, diaphragm and tongue) in rats."

Nikkels, AF, Henry, F., Pierard, "Allergic Reactions fo Decorative Skin Paintings"

European Academy of Dermatology and Venereology, 2001 15, 140-2

"PPD is the main allergen identified in allergic reactions to decorative skin paintings"

Nixon, R. Orchard D. "Positive Para-Phenylene Diamine (PPD) Reactions Following Paint-On Tattoos"

Australas J Dermatol 1999 40: 120

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

O'Brien TJ, McColl CM, "Unusual reations to Paint-On Tattoos"

Australas J Dermatol 1999 40: 120

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Onder, M., Atahan, C.A., Oztax, P., Oztas, M., "Temporary Henna Tattoo Reactions in Children"

International Journal of Dermatology, 2001, 40, 577-579

"Henna is relatively safe. Allergic and irritant reactions are rare"

"PPD added to henna causes severe contact allergy, patch tests confirmed sensitivity to PPD, not henna"

"At least one case of permanent scarification has been reported"

"Postinflammatory hypopigmentation may remain at tattoo site"

(this means after the scarring and blistering has subsided, a long-lasting white ghost image of the tattoo remains)

Rajka G, Blohm SG, "The Allergenicity of Paraphenylenediamine "

Arch Derm Stockholm 1970: 50: 51-4

Demonstrates the relationship between sensitization to PPD and sensitization to benzocaine

Shemesh I, Mishai Y, Baruchin A, Viskoper R, Azuri M., "Rhabdomyolysis in paraphenylenediamine intoxication"

Veterinary and Human Toxicology 37, 244 - 245 1995

Death caused by PPD

Saito, K., Murai T., Yabe K., Watanabe H., and Hurukawa T., "Rhabdomyolysis due to paraphenylenediamine hair dye. Report of an Autopsy Case."

Nippon Hoigaku Zasshi 44 469 - 474 1990

Death caused by PPD

Scibilia, J; Galdi, E; Biscaldi, G, and others, "Occupational asthma caused by black henna"

Allergy. 52, no. 2, (1997): 231 (1 pages) Libraries: 187

Para-Phenylenediamine is demonstrated to cause Asthma

Severin Lutchi, Stephan Lautenschlager, "Contact Dermatitis after Temporary Henna Tattoos – an Increasing Phenomenon" Outpatient Clinic of Dermatology, Triemli Hospital, Zurich Switzerland

Swiss Medical Weekly, 2001: 131, 199-202

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Sidbury, R., Storrs FJ, "Pruritic Eruption at the site of a Temporary Tattoo"

Am J Contact Derm 2000 II (3): 182-183

Demonstrates that PPD is a potent skin sensitizer, and can cause angioneurotic edema, colapse and renal failure in severe cases.

Suliman S., Homeida M., Aboud O, "Paraphenylenediamine Induced Acute Tubular Necrosis Following Hair Dye Ingestion"

Human Toxicology 2, 633- 635 1983

Death cause by PPD; children who have PPD black henna applications may accidentally ingest PPD!

Thami, G P ; Kaur, S ; Kanwar, A J, Allergy Net - "Allergic contact dermatitis to henna"

Allergy. 56, no. 10, (2001): 1013 (1 pages)

Additional Info: Munksgaard.

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Tosti, A., Pazzaglia, M., Bertazzoni, M., "Contact Allergy from Temporary Tattoos"

Br J Dermatol 2000; 136: 1061 - 2

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

United States Congress House Committee on Interstate and Foreign Commerce Subcommittee on Oversight and Investigations, "Safety of hair dyes and cosmetic products : hearing before the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce, House of Representatives, Ninety-sixth Congress, first session, July 19, 1979"

Washington : U.S. Govt. Print. Off., 1979

In this document arguments are put forth before congress demonstrating that PPD

and other ingredients in hair dye are hazardous to the consumers health, and is linked to cancers, is mutagenic, causes asthma, and has caused severe debilitating illnesses and deaths.

United States General Accounting Office, "Cancer and coal tar hair dyes : an unregulated hazard to consumers : report of the Comptroller General of the United States Publish info Washington"

General Accounting Office, 1977

In this document arguments are put forth before congress demonstrating that PPD and other ingredients in hair dye are hazardous to the consumers health, and is linked to cancers, is mutagenic, causes asthma, and has caused severe debilitating illnesses and deaths.

Wakelin S.H., Creamer D., Ryroft R.J. G., White I., R., McFadden, "Contact Dermatitis from para-phenylenediamine used as a Skin Paint"

Contact Dermatitis, 1998, 39: 92-3

Demonstrates that PPD is the cause of "black henna" injuries, not henna!

Watanabe, T., Hirayama, T., and Fukui, S., "The Mutagenic Modulating Effect of P-Phenylenediamine on the osication of 0- or m-phenylenediamine with hydrogen peroxide in the Salmonella test"

Mutat. Res. 245, 2001 - 220 1990

"P-Phenylenediamine has been reported to increase the formation of liver tumors in mice"

"Many of the P-Phenelynediamine derivitives were found to be mutagenic."

Wurstbauer, Karl ; Sedlmayer, Felix ; Kogelnik, H Dieter, " Skin markings in external radiotherapy by temporary tattooing with henna: Improvement of accuracy and increased patient comfort"

International journal of radiation oncology, biology, physics. 50, no. 1, (2001): 179 (4 pages)

Additional Info: Pergamon Press.

Notes high level of safety in 100% natural henna, and its potential helpfulness as a site locator in radiotherapy treatment.

Yokozeki, H.; Watanabe, K.; Katayama, I.; Nishioka, K., "gd T cells assist ab T cells in the adoptive transfer of contact hypersensitivity to para-phenylenediamine"

Journal of Investigative Dermatology Volume: 108, Issue: 4, April, 1997. pp. 641.

"Sensitization by para-phenylenediamine(PPD) has been considered by some countries to be so great a hazard that its use in hair dyes was banned in Germany in the early 1900's. It was subsequently prohibited in France, and in 1964 in Sweden; however in Japan PPD is still used as a common component in hair dyes."

Yokozeki, H.; Watanabe, K.; Igawa, K.; Miyazaki, Y.; Katayama, I.; Nishioka, K., "The Risk of Active Sensitization to PPD"

Clinical & Experimental Immunology Volume: 125, Issue: 3, September 1, 2001. pp. 351-359.

On the web:

<http://www.truetest.com/templates/20.html>

If you have become sensitized to PPD through a PPD 'black henna'

temporary tattoo, contact with the following may set off a nasty allergic reaction! You may have to avoid these if you have had a reaction to a PPD "black henna"!

PABA-based sunscreens or creams Azo® or disperse textile dyes Other dye chemicals Sulfa drugs Semipermanent hair dyes Some "caine" drugs such as benzocaine* Sulfonamides* Para-aminosalicylic acid (p-aminosalicylic acid) Diaminodiphenylmethane (epoxy hardener) Para-aminodiphenylamine (p-amino-diphenylamine) Paratoluenediamine (p-toluenediamine) 2,4-Diaminoanisole Ortho-aminophenol (o-aminophenol) Black rubber products Sulfones**

Talk to your doctor about this, especially if you have a prescription that ends in "-caine".

You also may wish to avoid sunscreens or creams that contain PABA (para-aminobenzoic acid or p-aminobenzoic acid) and products containing benzocaine, since some people allergic to p-Phenylenediamine will react to these products. Inform your healthcare providers that you have a reaction to PPD black henna, indicating an allergy to p-Phenylenediamine!

<http://ntp-server.niehs.nih.gov/htdocs/LT-studies/TR169.html>

TR-169 Bioassay of 2-Nitro-p-phenylenediamine for Possible Carcinogenicity (CAS No. 5307-14-2)

"2-Nitro-p-phenylenediamine. a component of both semipermanent and permanent hair dye formulations, was selected for bioassay by the National Cancer Institute because of the increased incidence of bladder cancer among dye manufacturing industry workers. Aromatic amines are one of several classes of organic chemicals thought to contribute to the increased cancer risk in this industry. The widespread exposure to 2-nitro-p-phenylenediamine among the general population, and the possibility of an increased cancer risk among hairdressers were additional factors in the selection of this compound for testing."

"Under the conditions of this bioassay, dietary administration of 2-nitro-p-phenylenediamine was carcinogenic to female B6C3F1 mice, causing an increased incidence of hepatocellular neoplasms, primarily hepatocellular adenomas."

<http://www.nlm.nih.gov/medlineplus/ency/imagepage/2388.htm>

Krystle's Story



Krystle at Christmas, 2001

Let me introduce myself. My name is Deborah Wilson and I'm the single mother of a 21-year-old daughter, named Krystle. Our life was fairly normal prior to Sept. 1st. After working 23 years at Bell, I found myself jobless when they downsized and I was in the process of looking for another job. Then overnight our lives turned upside down. Money is tight, but my job hunting has come to a halt. I'm taking care of my daughter who has been sick since Sept. 9, 2002.



Krystle 2 months before PPD "Black Henna"

Everything started happening to her 9 days after she had a Black Henna Temporary Tattoo put on her arm, at the Exhibition Sept. 1st. First she developed "contact dermatitis" on the site of the tattoo and 5 days later her whole body broke out in

hives, which till now she still gets almost every day. She must take Reactine and Allegra daily to help relieve the itch. We discovered some very frightening information on various websites, about the dangers of Black Henna. Unfortunately all our doctors here are not aware of these dangers or of the possible long-term side affects and medically they don't know how to prove it.



Krystle's legs and face swollen with hives after PPD "black henna"

We have seen a total of 16 doctors. Krystle has had blood work after blood work. Cat-scans, ultrasounds, and x-rays: you name it, she's had it! We've seen almost every specialist you can think of. The doctors are baffled by all her symptoms and have yet to find out what's causing them.

We still believe they are linked to the tattoo she got and some chemical or toxins especially PPD that are commonly used in the tattoo pastes. The doctors are suspicious as well, but there have never been any studies done in this area, in Canada.

On Sept. 20 Krystle's face, hands, and feet became swollen, tight and sore. On Sept. 27 the doctor noticed her blood pressure was low and it still is today. She rapidly started gaining weight around this time even though her eating habits hadn't changed. She went from 117 pounds (on Sept. 14) to 145 pounds (on Nov. 20). She also experienced pain that felt like very bad bruising on her thighs, ribcage, ankles and feet.



Krystle's hands swollen with hives

That has since disappeared. Then she started to get chest pains and heart palpitations on Oct. 17. Shortly thereafter she was diagnosed with Hypothyroid.



Krystle's feet swollen with hives

She had to buy new clothes and winter boots because all her small sizes no longer fit her. She has always worn size 6 ½ in her shoes and she is now wearing 7 ½ because of her swelling. Its hard finding shoes that are comfortable.

On Jan. 8 they discovered fluid around her heart and lungs so they decided to hook her up with a Holter that monitors the actions of your heart over a 24-hour period. At the same time they sent her for a Pulmonary Function Test to see how her lungs were doing. The results were alarming. Her heart was at such a state that if it had not been detected, she could have went into cardiac arrest. So now she is on heart pills (twice daily). Her lungs are less than normal for a girl her age who also doesn't smoke. She will have to see a Respiratory Specialist next.

We are both at our wits end over all of this. It's like a very bad nightmare. Last week Crystal had to finally drop her second semester. She was working to complete the final year of her Early Childhood Education Program, but everything got to be too much for her. She was missing too much school and it was becoming very difficult to keep up with all her assignments. Hopefully she can return again in September if her health improves. On Feb. 18th we are seeing a Rheumatologist. Hopefully he will put all the pieces together. He deals with autoimmune diseases.

I have spoken with Health Canada about Black Henna Tattoos and they are not aware of any problems that may exist. I even spoke to two reporters at CCTV News about interviewing my daughter for a special segment on Black Henna. They said it would help if I could find other people like my daughter, who have suffered with scarring, contact dermatitis, or any other unexplained illnesses, after getting one of these Black Henna Tattoos. With other victims coming forward, we may very well have grounds for a "Civil Class Action Suit". I have called the Tattoo Parlor 4 times and they've never called back. That should speak for itself. All I want to know is what's in the paste they use.

We desperately need to get in touch with others who may have or still may be suffering in silence because of a what they thought was just an innocent Black Henna Temporary Tattoo. I'm sure that if we work together we can make a difference. We can make others aware of the dangers facing them and their children and hopefully close down these tattoo vendors.

I'm looking into speaking with a lawyer in the near future. Maybe we could all benefit from this misfortune. I'm also including photos of my daughter before and now. She awakes every day with her eyes, lips, and face swollen. She turned 21 in December. Life is too precious to sit back and do nothing. I hope you can all do your best to help us find answers and possible solutions. God bless you all.

Please forward any information you may have or share your experiences and photos with Deborah Wilson in Toronto, Ontario.

My main email is: debmwilson230@rogers.com My second email address is: goldengirl45_2000@yahoo.com