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# Nickel Allergy

Nickel is a silvery-white metal that can be found in nature. It is usually mixed with other metals to produce alloys. For example, nickel-iron, which is used to manufacture stainless steel, is the most common nickel alloy. Other nickel alloys are used to make coins, costume jewelry (i.e., earrings, watchbands, rings, necklaces, necklace clasps, bracelets), bra or girdle fasteners, zippers, snaps, buttons, suspender clips, hair-pins, studs, eyeglass frames, pens, handles, utensils, paper clips, keys, and tools. Nickel is tightly bound up in stainless steel, especially surgical stainless steel.

As you can see, nickel is found in many common, everyday items. Although you may be exposed to nickel in the workplace environment (if you work with nickel, or live near industries using nickel), it is much more likely for the general population to come into contact with nickel through direct skin contact.

This is important because nickel appears to be a very common cause of allergic skin rashes, with nickel allergy being more common among women than men. Apparently, ear piercing (and probably any body piercing, in general), which women are more likely to do than men (although this has been changing), has put susceptible individuals at greater risk of becoming more easily sensitized to nickel.

A nickel allergy is a reaction that develops after initial and/or brief, or repeated and/or prolonged, exposure to nickel or nickel-containing items, depending on the individual's susceptibility. Degree of reaction also varies by person. Specifically, nickel allergy is a contact allergy, which is an allergic skin reaction in response to being exposed to a contact allergen or irritant, such as nickel. A nickel allergy can occur at any age, and typically manifests a few days after first contact as eczema (allergic contact dermatitis), which appears as an itchy, dry/crusty, and red/pigmented skin rash with watery blisters. The affected area is usually restricted to the site of contact, although it could also be found on other parts of the body. Once a nickel allergy has developed, it is usually a chronic condition, often being life-long.

If you have not been tested for nickel allergy, then do so to be certain that what you have is actually a nickel allergy rather than some other condition that would require different treatment. To determine whether or not your persistent skin condition may be the result of a nickel, or other contact allergy, go to a dermatologist to see if you are a good candidate for patch testing. Patch tests are safe skin test procedures which involve the direct application of tiny quantities of several suspected contact allergens, in aluminum chambers, to the skin of the upper back using hypoallergenic tape. The concentrations of these allergens are low so that they won't cause irritation or reactions in non-allergic individuals, but are high enough to cause a positive response in sensitive individuals. The allergens are in contact with the skin for 48 hours, undisturbed, and then examined at 48, and 96, hours after application. An individual is allergic to nickel (or other contact allergen) if a positive reaction is noted. However, patch tests may produce vague or unclear results that may require further examination. This means that sometimes, the cause cannot be determined.

If you are allergic or sensitive to nickel, the best thing for you to do is to discontinue, whenever possible, exposure to nickel and nickel-containing items. It appears that this is the closest thing there is to a cure. So, if you are sensitive to nickel, what can you do to limit your exposure to nickel? Since nickel is in numerous metallic items, it may be difficult for you to know which to avoid. An easy way to determine whether or not a metallic item contains nickel is through the use of a dimethylglyoxime spot test, which is a nickel-testing kit that safely tests your jewelry and other suspected metallic items for the presence of

nickel. You can obtain one from a dermatologist or pharmacist. In the kit, you should find a container of dimethylglyoxime and another of ammonium hydroxide. Mix the two liquids together with the suspected metallic item. If a pink color is produced, then the item contains nickel.

Besides testing what you already have, here are some more precautions for you to consider when looking for other items. For clothing, choose fasteners made of plastic, coated or painted metal, or some other material. A nickel allergy does not mean you can no longer wear jewelry as well. You just have to be much more selective in your choices -- make sure they are hypoallergenic, or made of stainless steel (although this contains nickel, it is so tightly bound that it cannot be leached out), solid gold (at least 12 carat), pure sterling silver, or polycarbonate plastic. However, if you must wear earrings that contain nickel, protect yourself with plastic covers made specifically for earring studs. Applying clear nail polish to earrings is another option of some use. Since perspiration dissolves nickel, some people have tried removing moisture by applying talcum powder to areas of the body in contact with nickel-containing items in the hopes of limiting the extent or degree of exposure. This is of little use.

Regarding treatments the following are only temporary solutions to a nickel allergy, since they do not desensitize you to nickel. Some nickel allergy treatments include topical steroids, which must be used as directed by your dermatologist; compresses made of Burow’s solution diluted with water, which help dry up blisters; and/or, emollient creams, which help alleviate the dryness and itch of dermatitis when frequently applied.

Finally, regardless of your nickel allergy status and/or exposure to nickel, if you are interested in piercing your ears, or other body parts, have it done only with a stainless-steel needle. More importantly, make sure your first pair of earrings have stainless steel or high quality 18-karat gold studs, which you will wear until the skin is completely healed. These precautions will help reduce your risk for developing a nickel allergy in the future.