

NICKEL

_____ Name

_____ Date

What is it?

Nickel is a durable inexpensive metal that is a very common cause of allergic contact dermatitis. It is widely present in shiny silvery objects, and sometimes in water or products stored or cooked in metal. Allergy to nickel may develop in childhood and can persist for life.

Where might it be found?

jewelry, rings, necklace clasp
buttons, snaps, zipper, hooks
rivets, studs, suspender clips
belt buckle, watch band buckle
purse clasp, strap buckle
hairpins, clips, barrettes
eyelash curler, tweezers
nail clippers, nail file
razor blades, shaver screen
lipstick holder, compact
bra underwire, bra hook, clasp
eyeglass frames
dental implants, fillings, braces
cigarette lighter
keys, key-chain, key ring
coins, Euro, money clip
pocket knife
cell phone, i-Pod
badge chain or clip
scissors, letter opener
paper clips, staples
metal pens, metal pencils
stethoscope neckpiece
acupuncture needles
knitting needles
sewing needle, pins, thimble
kitchen utensils, cutlery
tea ball, egg beater
vacuum cleaner, toaster
metal instruments, parts, file
work tools, hobby tools
chain saw or lathe fragments
electrical wiring, water pipes
plastics reagents
enamel dyes
duplicating fluids

musical instruments, surgical instruments
orthopedic metal implants, esp. static and large
brushed chrome fixtures, cabinet handles, knobs
pigments in fabric, ceramics, wallpaper, paint
alkaline batteries, magnet cores, electroplate
electronic chips
cutting fluids, coolants, fuel additives
smoke from cigarettes, foundries, incinerators
insecticides

How to avoid it:

Many plated metals and alloys release nickel when in contact with sweat on the skin. Objects can be checked for nickel by swabbing with dimethylglyoxime and ammonium hydroxide. A bright pink shows nickel is present. You may buy a test kit (order from Allerderm, 800-365-6868, www.allerderm.com or Delasco, www.delasco.com).

Avoid nickel by carrying coins in plastic pouches. Cover keys with a plastic key guard or use copper keys. Use an emery board rather than nail file. Use silicone cases for cell phones and i-Pods. Cover nickel items with several coats of Nickel Guard (www.nickelsolution.com), clear nail polish, or acrylic paint, and reapply when it chips. A heavy cloth backing or iron-on patch on jeans behind a rivet or snap may help protect.

Select scissors and tools with plastic, rubber, or wood handles. Use vinyl gloves to handle metal objects or industrial solutions containing nickel. Reduce friction, pressure, and perspiration if exposure is required. Adults, but not children, may try protective creams (like Tetric or 3% clioquinol, www.delrayderm.com). For prostheses and implants, consider materials like porcelain, titanium, or zirconium.

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Jewelry made from at least 12 carat gold, sterling silver, platinum, and titanium is usually safe. An item that causes a reaction can be plated with rhodium, but ask about expected cost and frequency of re-plating. Hypoallergenic nickel-free jewelry can be purchased from many sources (such as www.simplywhispers.com 800-451-5700, and Ear-eze 781-767-7770). It is wise to test prospective metal purchases for nickel first with the dimethylglyoxime kit before buying. Here are some guidelines you may find useful:

SAFE

rose gold
pewter
bronze
stainless steel*
platinum
yellow gold (≥12 carat)
sterling silver
pure copper
brass
medical plastic
most titanium alloys^

AVOID

white gold (unless 14kt palladium white gold)
nickel silver (an alloy of copper, nickel, and zinc)
nickel bronze
chrome
plated jewelry whose surface can wear off to reveal nickel
German silver (an alloy of copper, nickel, and zinc)
alpaca (an alloy of copper, nickel, and zinc)
sea water bronze
high-strength yellow brass
palladium (closely related to nickel and may cross-react)
some titanium alloys

*may produce a reaction if used in a surgical implant, if a high sulfur type stainless steel, or if in prolonged exposure with sweating

^Blomdahl-gold plated titanium, Boccia-titanium earrings, TeNo-nickel-free stainless steel (see www.allergymatters.com)

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Some studies support the use of a nickel avoidance diet, especially in cases of chronic hand or widespread dermatitis. Your doctor may recommend you try for one month eliminating foods that are high in nickel:

AVOID THE FOLLOWING:

Shellfish, such as shrimp, mussels, crawfish, herring, oysters, canned tuna and mackerel

Asparagus

Beans (green, brown, white, kidney, soya, baked)

Kale

Leeks

Lentils

Lettuce (also commercial salad dressings)

Peas (green and split)

Soy protein powder (found in sausages, sandwich meat, products from minced meat, bread, and soup concentrates, bouillon), tofu, soy sauce

Spinach

Sprouts (bean and alfalfa)

Bran, buckwheat

Wheat bran and other bran and fiber products

Millet

Muesli and similar breakfast cereal

Multigrain breads

Oatmeal, oats

Rice (unpolished)

Rye bran

Sesame seeds

Sunflower seeds

Dates, figs, pineapple, plums, prunes, raspberries

Gelatin, rhubarb

Chocolate, esp. dark and cocoa products

Tea from dispensers, black tea

Almonds, hazel nuts, peanuts, walnuts, cashews

Strong licorice, excess baking powder

Vitamins and nutritional supplements

YOU MAY EAT:

Eggs, fish, meat, poultry, including turkey

Milk (except chocolate)

Yogurt, cheese, butter, margarine

Beets, red

Broccoli

Brussels sprouts

Cabbage, white and Chinese

Cauliflower

Corn

Cucumber

Dill

Eggplant

Garlic

Mushrooms

Onions

Parsley

Peppers, green and red

Potatoes, parsnips

Rice products (from polished rice)

Cornflakes, cornmeal, cornstarch

Macaroni

Popcorn

Spaghetti

Wheat flour

Whole grain rye and wheat (in moderation)

Bananas, berries (except raspberries), peaches, pears

Raisins

Carbonated and alcoholic beverages

Coffee and tea (in moderation)

Yeast

CAUTION against nickel leached from cans or cooking pans of fruits and vegetables.

If your dermatitis improves during the nickel restriction diet, begin to re-introduce one removed food each week. Watch carefully for any flare of your dermatitis. Wait a full week before adding back another item.

In some areas of the country, the first quart of water flushed through the tap in the morning may contain significant levels of nickel. Avoid drinking this water.