Hi Alice!

I love getting my nails done with a gel or shellac manicure. The polish doesn't chip at all and stays shiny for weeks. I'm just worried about the UV light used to seal the manicure - it is almost like a mini tanning bed for your hands. What are the risks? And are there any bad chemicals in the polish?

Thanks, Alice! Dazzling Diva

Answer

Dear Dazzling Diva,

Some people say “beauty is pain,” but feeling beautiful needn’t be hazardous to your health. Traditional gel and shellac manicures are quite popular for the reasons you’ve listed: they’re durable, chip-resistant, and have a nice, lustrous shine (more on the difference between the two manicures in a bit). While the gels and the ultra violet (UV) curing process are both relatively safe, these types of manicures aren’t completely without risk. The gels may cause allergic reactions or nail damage for some people, and the UV exposure can present minor risks to your skin and eyes, especially if the curing lamp is not used properly or you have preexisting risk factors. As with other beauty salon services, it’s a good idea to be aware of potential health and safety risks before you head off for some pampering. As with any beauty service, choosing licensed, professional, and sanitary salons tends to be the safest bet.

While both types of manicures are of the ‘gel’ variety, there are a few differences between the two:

- **Gel manicures** begin by the manicurist applying a dehydrator on the nail, then a coat of primer gel, and finishes off with three layers of colored gel. Each layer is cured using a UV lamp, for about one to three minutes. Traditional gel manicures need to be rebalanced (i.e., cleaned, trimmed, and filed) approximately every two weeks because the nail plates will continue to grow, leaving gaps. You can get a gel manicure both at a salon and at home with commercially available kits.

- **A shellac manicure** is a longer-lasting type of gel manicure. They last for about 4 to 6
weeks and there’s no shaping or arching needed. Though it has staying power, the process is also longer. It involves six coating steps with one to three minutes of curing for each step. Shellac manicure products can only be purchased by professionals, and thus, the manicures can only be done at a salon.

As far as the potential risks, what’s a diva to do about the UV exposure? Concerns about UV exposure in gel manicures first made news when an observational study described the cases of two women who were frequently exposed to the manicure lights and developed skin cancer on the back of their hands. However, this observational study was followed up by experimental ones, and the general consensus now is that the risk from the UV lamps to your hands is minimal. The intensity of the UV light for a manicure lamp is many times lower than that of a traditional tanning bed, and dermatologists have generally given gel manicures the green light in terms of safety.

However, some factors that could increase the risk of adverse effects from the UV lamps include:

- A history of skin cancer
- Any preexisting diseases such as xeroderma pigmentosum (a rare, but extreme sensitivity to UV rays) or any history of skin cancer
- A longer-than-normal exposure to the UV lamp or if lamp is installed with the incorrect type of bulb
- UV light exposure to your eyes, which can damage structures in your eye and contribute to vision loss

If you want a bit of extra protection, dermatologists suggest using sunscreen on your hands or putting a cloth over the flesh of your hands before putting them under the lamp. Wearing sunglasses may help protect your eyes from possible UV rays. If you notice any skin abnormalities, it might be best to consult your health care provider.

And what about the gel itself? It’s composed mainly of plasticizers and resins, which pose little risk to your health. However, with both gel and shellac manicures, there is a risk of allergic contact dermatitis (ACD) [3], or irritation of your skin from some of the compounds used including: methacrylate (which gives the gels a plastic-y texture), any added fragrances to the gels, or the acetone used to remove some gel or shellac manicures. This means if you’ve had a skin reaction to acrylic nails or acetone in the past, you’re likely to get dermatitis from a gel manicure, too. There have also been reports of the gels and removal products causing nail dryness, roughness, discoloration, thinning, splitting, brittleness, and even separation of the nail from the nail bed. Have you ever noticed any of these changes in your nails? You may consider keeping close tabs on the quality and strength of your nails between manicures to catch any issues early.

Alice!

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