





ANATOMY 101

Michelangelo, da Vinci, Dürer, Raphael: Through various media, Renaissance masters celebrated human hands as works of art and marvels of anatomical engineering, illuminating the intricacies of their shape and sinews. Today, plastic surgeons and dermatologists are taking a renewed interest in the subject, aiming to preserve aging handsrefining canvases, restoring curves-with respect to their distinct design.

"The hands are incredibly complex, with 29 bones and 34 muscles controlling their movement; uniquely pliable and supple skin concealing critically important structures; and specialized receptors that allow us to perceive pain, temperature and contact," says New York plastic surgeon Lara Devgan, MD. Their fine covering and supreme dexterity elevate their sesthetic value, but also prime them for early aging. "The skin of the hands, though it takes a lot of wear and tear, is guite delicate, with a thickness similar to the eyelids," says New York facial plastic surgeon Dara Liotta, MD. What's more, our hands are lacking in pilosebaceous units, and consequently, "the stem cells present within these follicles, which are vital for repopulation of the skin following injury," says New York dermatologist Mitalee Christman, MD. explaining why our hands tend to heal more slowly than faces post-procedure.

Seizing upon the hands' built-in vulnerabilities is a steady environmental barrage. "Sun exposure when resting on the steering wheel, chapping when shoveling snow, blistering when pulling heavy loads—our hands accrue far more damage than other parts of our body," adds Dr. Devgan. The most notorious

aggressor, ultraviolet rays, turns on piament production. leaving hands mottled, and saps our collagen reserves. further thinning the skin to lax, crinkled, translucent effect. The fat pads of the hands naturally deflate with age, unmasking ropy veins and tendons (knobby knuckles, too, we've noticed). And then there are the insults we more willingly hurl: "Excessive handwashing and sanitizing with alcohol-based products break down the skin barrier, leaving hands dehydrated, cracked and inflamed," says New York dermatologist Dana Stern, MD. Over time, our fingernails, too, can adopt a wizened look, likely due to sluggish circulation and decades of UV exposure. They tend to lose their luster and develop ripples and ridges, which "aren't serious, but can cause nails to split faster," notes Montclair, NJ dermatologist Jeanine Downie, MD. Senescent nails even suffer a slight growth slump with age, starting as early as 20, with a rate drop of 0.5 percent per year.

Before diving headlong into a sea of solutions, let's take a moment to acknowledge that a certain amount of maturity often becomes the hands. When a dermatologist recently posted a picture of a pair of wrinkled. discolored hands-the caption, detailing why they age at warp speed-an astute commenter (a former beauty editor) pointed out "how 'important' jewelry looks on old hands...as if they earned the right to wear it." I loved that silver lining. Whether you choose to undo the ravages of time with one of the many methods we explore here. or simply appreciate the dignity in their ever-evolving form, no judgment. Do keep reading, though, as the upcoming pages truly hold something for everyone.



I have this clear memory of my father at my age, holding up a hand to inspect its brawny backside, bending and unfurling his fingers to see the skin crinkle in response, and summarizing plainly that his hands were no longer young. Recently, I've found myself, at 42, doing the same, noting that familiar crepe-paper texture, the widening valleys between tendons, the blue veins like rolling hills. My Dad, it's worth noting, has long been an avid outdoorsman, a woodworking crafisman, a fixer of all things broken—handy, in the most literal sense. Me? I type words and collect creams.

Hoping to head off my genetic destiny, I paid a visit to New York dermatologist Robert Anolik, MD. When I shared with him my self-diagnosis-severe volume loss, moderate visibility of veins and tendons-he laughed, assuring me the problem wasn't quite so dire and could easily be addressed with Restylane Lyft, the first (and, thus far, only) hyaluronic acid (HA) filler to win FDA approval for the correction of age-related volume loss in the backs of the hands. The soft, sugar-based gel is temporary, lasting up to six months in the hands; reversible if you don't love it; and has been used safely in the face for more than 10 years, so it's got a solid track record. What's more, injecting the hands, Dr. Anolik says, is less risky than the face, because the blood vessels here are big, visible and redundant. In other words, they're easier to avoid, and even if you did mistakenly enter one, the filler isn't as likely to obstruct a crucial source of blood supply, precipitating skin death, as can happen in select zones of the face. Also good to know: Filler-related lumps and bumps are less common in the hands than the face.

On the backside of my left hand, Dr. Anolik made a tiny needle prick about an inch up from my wrist, in line with my middle finger. Into the opening, he inserted a blunt-tipped cannula under my skin and above the muscle, and began injecting the gel, fanning the cannula left and right to hit all the hollows. (Pretty painless—even without numbing cream.) After a vigorous hand massage to evenly distribute the HA, he repeated the process on my right hand, saving one spot for a traditional needle fill, so I could compare the two methods. Cannula won, hands down: It's a single needle stick, and in my experience, produced less bruising and swelling. Both hands were a little tender the next day. (For the record, injecting Restylane Lyff into hands with a cannula is considered off-label. Still, dermatologists use it routinely here. as it is felt to be safe, and it is, in fact, approved for use with a cannula in the midface," Dr. Anolik says, adding that cannulas can give impressive results, 'especially in the hands where you have fairly easy access to a broad treatment area from one entry point.")

It took just half a syringe of filler per hand to instantly elevate the sunken pockets where time had eroded my fat. (With Restylane Lyfi, one to two syringes, at \$550 to \$1,000 per, is more the norm.)

I'm partial to HA fillers, because I like knowing they can be dissolved if need be, and that they metabolize over time. But, they're not the only option. Also greenlighted for hands, Radiesse is a thick biostimulatory filler made from calcium hydroxylapatite microspheres, proven to last up to a year in the hands. "It works very well, and in my opinion, offers a better value owing to its greater longevity and biostimulatory effects, promoting fibroblasts to build new collagen," says New York dermatologist Estee Williams, MD. Most patients need one to two syringes at about \$1,250 each. Sculptra Aesthetic is also being used



(off-label) in the hands (\$750 to \$1,200 per vial). The liquidy, poly-1-lactic acid infusion has a delayed gratification effect and *gives a gradual improvement to a larger portion of the hands (due to the way it diffuses), showing results in three weeks and lasting up to two years," says New York dermatologist Ellen Marmur, MD. Last fall, however, Dr. Marmur conducted an IRB approved pilot study with 20 patients examining the safety and efficacy of Restylane Silk, a thin HA filler, for finger rejuvenation, and found it delivered significant improvement for more than three months with a high level of patient satisfaction. 'Fingers age, like the hands, from overuse and loss of fat," she says. "Our goal here, though, is more to improve skin tone and smooth wrinkles than restore volume."

The use of filler in the fingers is not FDA-approved, nor is it wildly popular. "Only in the last six months or so have patients-and not a lot of them-begun asking me to inject their fingers, right where a ring would sit," says Dr. Liotta.

Some doctors warn that the fingers' unique anatomy can make injections in the area extra-risky. "The compartments are small and tight, so you have to be careful not to overfill-you also have the digital joints, nerves and arteries to consider," says Salt Lake City plastic surgeon Renato Saltz, MD. "I'd worry about scar tissue formation, foreign body reactions and infection. It's not a procedure for the novice injector." With this and every injection, trust only board-certified dermatologists and plastic surgeons.

WHEN IS FAT THE BEST FIT?

Autologous fat grafting-taking from the rich areas (using lipo) and giving to the poor (via injections)—is another way to revive withered hands. "It's like spreading melted butter on a bagel-the fat settles into all the nooks and crannies in a soft, supple way," explains Dr. Devgan. While she uses both synthetic fillers and nanofat (or "morcellized particles that allow for easier delivery and smoother results"), the latter has its advantages. "Fat is in abundant supply in most of us; it's permanent; and its inherent stem cells may benefit skin texture and quality," she adds. New York plastic surgeon Adam Kolker, MD calls fat grafting "the gold standard in hand rejuvenation." But the procedure isn't without downsides. It is surgery, after all-hence riskier, more time-consuming and more expensive than the average filler (figure \$8,000plus for hands). Fat is also criticized for its inconsistencypatients may need multiple sessions to get the boost they're after. This shortcoming has some surgeons abandoning fat for hand restoration, "It's not as predictable as filler," says Dr. Saltz, who relies on Radiesse when treating the hands. Chicago plastic surgeon Julius Few, MD also prefers synthetic fillers to fat for hands, generally reaching for reversible HA options. Same for Dr. Liotta, who doesn't like to fat graft in such thin-skinned areas. In her experience, she says, "there's always the risk of clumping-having one island of fat cells that takes next to an area that doesn't." Other complications include bruising, swelling and soreness, but experts agree this is a very safe procedure when performed by an experienced, board-certified plastic surgeon.

LASER TAG

To fade sun-induced speckling on the hands, doctors may reach for any number of energy-based devices. (Before committing to one, "have a dermatologist examine your hands for atypical spots and potential skin cancers," suggests Los Angeles dermatologist Dr. Michael Kassardjian.) Intense Pulsed Light (IPL) therapy scores points because it can tackle a broad swath of flecks on fair skin, in three to five treatments, with little downtime. "It's strictly for flat sunspots and works best on those that are smaller than a dime," says Dr. Williams. After zapping, the spots darken and flake off over the course of several days, revealing unsullied skin beneath. For larger, more concentrated splotches, pigment-seeking Q-switched lasers, like the Ruby, Alexandrite and Nd: YAG, can safely treat a range of skin types, minimizing or all-out erasing marks in a single appointment, "The area develops a white frost or pink welt, which transforms within hours to a dark scab or flat pink stain, healing completely in about one week," says Dr. Christman. For widespread dappling coupled with crepiness, there's the Fraxel Dual, a resurfacing laser that creates microscopic wounds, instigating a repair process for stronger, smoother, more even-toned skin. The Dual has also been shown to eradicate precancerous lesions, "preventing their progression into full-blown squamous cell carcinomas." notes New York dermatologist Kenneth Howe, MD. Expect about a week of downtime, during which skin looks sunburned, then bronzed and crumbly. For those concerned more about skin's springiness than spots, radio-frequency tools, like Thermage and Pellevé, can thicken and tighten the skin of the hands with zero downtime, says Miami dermatologist Janelle Vega, MD. Sun avoidance and protection are extra crucial when recovering from light and laser treatments.





LET THE HEALING COMMENCE

a cult-classic **DECONSTRUCTED**

The modern-day owners of centuries-old L'Officine Universelle BULY can't say for sure when the brand's iconic hand salve. Pommade Concrète. officially came into existence, but they do know it appeared in the company's original catalog, circa early 1800s, and was housed, like all of their other creams at the time, in a white porcelain pot. This seems almost unimaginable today, considering the cream is now revered as much for its cobaltblue tube as the ancient formula it holds. You can see it here: the aluminum sleeve-crisp and smooth, until first squeeze, when ensuing crinkles add to its charm; its tarot-esque palm and stately white cuff, beckoning from the apothecary shelf. The Parisian recipe inside-beeswax, chamomile water, shea butter, magic-is famous for its healing powers, unrivaled brawn and extravagant sense of je ne sals quoi that's made it a staple among society insiders. "It's no surprise Pommade Concrète

has such a cult following," says cosmetic chemist Rhonda M. Davis. "The pure, buttery formula not only provides prolonged moisturization, but also soothing properties and an enchanting scent." Here, she helps us unlock its many mysteries.

HYDRATION EQUATION

"To moisturize and comfort skin. a blend of shea butter, sesame seed oil and vitamin E combines with emollients, like hexyldecyl laurate, hexyldecanol and cetyl ricinoleate-all known for their luxurious feel and spreadability. Glycerin, a classic humectant, and glyceryl caprate, a mixture of vegetable glycerin and fatty acids, come together to prevent premature loss of moisture from the skin. Cera alba (aka beeswax) forms a barrier on the skin to seal in water and enhance durability, helping the cream withstand hand-washing throughout the day."

THE THICK OF IT

"One might hold shea butter responsible for this cream's rich base, but it's actually the body-building beeswax and the way it melds with the emulsifiers and viscosity boosters in the mix-things like naturally derived sorbitan sesquioleate, polyglyceryl-3 polyricinoleate, magnesium stearate, and aluminum tristearate. When formulating, selecting the ideal emulsifiers is critical for a hand cream, as they can dictate the final formula's weight and texture."

AU NATUREL

"Anthemis nobilis (or Roman chamomile) flower water not only adds hydration, but also has a light, herbaceous scent, which when blended with plant-derived notes, like linalool, citronellol, geraniol, citral and limonene, yields the cream's fresh fragrance."

WHO KNEW?

SCLERO FOR HANDS IS NOW A

If you've ever watched a web of spider veins vanish before your eyes, you're perhaps already familiar with sclerotherapy. (Thank you, Instagram.) During the treatment, doctors inject an irritant solution into offending veins, which damages their linings, causing them to collapse and shrivel, or close up altogether. Galves and ankles have long been popular targets, but hands, it seems, are the next frontier. 'I find most people's biggest complaint is the unsightliness of the veins," says New York plastic surgeon Steven M. Levine, MD. With light sclerotherapy, 'we can significantly shrink the visible surface level veins on the backs of the hands." (Published data is scant, however.) These vessels may look important, but Dr. Levine contends they can be diminished without impacting the hand's function: "Known as reticular veins, they have a great amount of redundancy, specifically within the deeper venous system below the muscles." Due to their size (between 2 and 5 millimeters), the aforementioned disappearing act may not happen with hands. "The veins typically lighten with the inflow of the sclerosant, and then contract, but can take up to three weeks to fully resolve," says Dr. Levine (following one to three treatments). The procedure generally isn't painful enough to warrant numbing cream, but for those wanting to distract from the needle sticks, "we can use cold and mechanical pressure to overload sensory nerves," says New York vein specialist Luis Navarro, MD. Following injections, hands are wrapped for a day or two to minimize swelling. "The treated veins usually don't come back," adds Dr. Navarro, "In the small percentage of patients who do see them recur, it's five to 10 years later."









"In an average clinical day, I diagnose and treat between one and five skin cancers on the backs of the hands," says Dr. Geraghty: Inspect your bands thoroughly during self-exams, and see a dermatologist annually for a full-body screening (Pictured from top, I Hannah polishes in Blue Nudes, Ikebana and Hepworth.)

PUT UP YOUR DUKES

what the **DOCTORS ORDER**

"Isdin Eryfotona Actinica Ultralight Emulsion SPF 50 is my favorite for anyone with a history of skin cancer or precancerous lesions because it contains phytolase, an enzyme that helps to reverse DNA mutations caused by sun exposure, plus antioxidants to prevent early signs of aging. It's great for the face, but works especially well on the hands, too, as it's water-resistant," -Fresno, CA dermatologist Kathleen L. Behr, MD

"I use EltaMD UV Pure Broad-Spectrum SPF 47 on my hands. With zinc oxide, titanium dioxide and vitamin C, it's powerful but not sticky." -New York dermatologist Ellen Marmur, MD

"Hands are so textural—it's important to find a formula that suits your lifestyle and preferences. Because most people won't tolerate a greasy feel on their hands, Frecommend sticks, like Neutrogena Ultra Sheer Face & Body Stick SPF 70 and Shiseido Clear Stick UV Protector WetForce SPF 50+." -Medford, OR dermatologist Laurel Geraghty, MD

"SkinMedica Total Defense + Repair SPF 34 packs antioxidants to help with skin repair in addition to providing protection from UVA, UVB and infrared rays." -New York dermatologist Elizabeth K. Hale, MD

"Lapply my regular daily sunscreen to the backs of my hands before heading out, rubbing it in well for a good base layer. Then, to make reapplication easier, I switch to a stick or powder formula, like Avène Hydrating Sunscreen Balm SPF 50+ or Colorescience Sunforgettable Total Protection Brush-On Shield SPF 50." -Los Angeles dermatologist Dr. Michael Kassardjian

"La Roche-Posay Anthelios Melt-In Sunscreen Milk SPF 60 is water-resistant and offers broad-spectrum protection. On the go, I use Supergoop! Glow Stick SPF 50 because it's easy to swipe on and there's no white cast or unpleasant odor." -New York dermatologist Yoon-Soo Cindy Bae, MD

