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SKIN

You've Been Had By the Exosome Product Boom

Here's what these serums and creams actually do.

BY VICTORIA MOORHOUSE

October 1, 2025





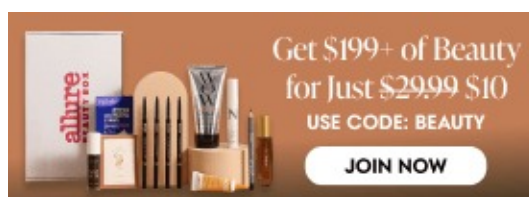
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About three years ago, the word “**exosome**” quietly slipped into the skin-care lexicon. Fast forward to 2025, and it’s seemingly everywhere: A press release for a facialist’s spa recently touted its new “exosome dome” (a futuristic rotunda where you can experience exosome therapy). The facialist insists it’s not “**your average dome.**” And that exosome cream you’re seeing on beauty shelves? It’s supposedly not your average **cream.**



Scientifically speaking, exosomes are tiny structures released by cells that contain molecules like **proteins, lipids, and genetic material.** You can think of them as microscopic delivery

trucks—bubble-like forms that facilitate communication and coordination between cells by delivering their molecular cargo, says [Ellen Marmur](#), MD, a board-certified dermatologist. [Marisa Garshick](#), MD, another board-certified dermatologist, notes that when this exchange occurs naturally in the body, it facilitates wound healing as well as other forms of cellular repair and regeneration.

Skin Check

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The conversation around exosomes and skin initially centered on [exosome therapy](#): an in-office treatment involving the application of topicals containing these tiny structures across the face following [microneedling](#) and [laser resurfacing](#). Although there are currently no FDA-approved exosome treatments on the market, [JuveXO](#) and [Exovex](#) are examples of exosome-infused product lines designed for use in-office after these procedures.

[Marnie Nussbaum](#), MD, a board-certified dermatologist, explains that exosomes have been shown in lab settings to elevate the concentration of [growth factors](#) that increase collagen and elastin, leading to improved skin laxity, a reduction in [hyperpigmentation](#), and wound healing. In short, slathering exosomes onto your face after [microneedling](#) and [lasers](#) may reduce healing time and improve skin quality.

We're also starting to see the potential use of exosomes in the hair-loss space. "Some people have done studies with exosomes...supplying them directly to an intact scalp and getting [hair growth](#)," says Todd E. Schlesinger, MD, a board-certified dermatologist and co-author of the scientific literature review [The Role of Exosomes in Medical Dermatology](#). But the evidence is still anecdotal. "You'll find a bit of research here and there—mostly small studies, case reports, or series involving just a few patients."

So what does that mean for your **skin-care routine** outside of a doctor's office? Most products that tout exosomes as an active ingredient are focused on rejuvenation and regeneration, claiming to address visible signs of aging such as fine lines, wrinkles, and skin laxity, but the science to back up these claims is currently lacking, plus there's no industry standardization or regulation for sourcing or manufacturing exosomes for cosmetic use.

And yet, the hype only continues to grow. So does any of this stuff actually work? Should we be concerned about product safety? And where are companies getting all these exosomes from anyway? We asked **dermatologists** and **cosmetic chemists** for their thoughts. Below are our eight biggest takeaways.

1. Ask 13 dermatologists and chemists about the benefits of exosome skin-care products and you'll get 13 different answers.

When we first started reporting on the role exosomes play in skin care, we received responses couched with phrases like, "They might do this," or, "I guess, theoretically, they may..."

Dr. Nussbaum hopes that exosomes will enhance the **skin repair** process. Compared to other topical **skin-care ingredients**, Dr. Marmur says exosomes might be able to survive longer in the skin's defensive environment due to their protective structures. **Corey L. Hartman**, MD, a board-certified dermatologist in Birmingham, Alabama, is less convinced of their abilities. "I don't even think that exosomes penetrate deep enough to be effective," he says.

2. One thing many of them can agree on: Exosome products hit the market way too quickly.

Let's get this out of the way: No one we spoke to could definitively say that exosome skin-care products work. Dr. Schlesinger says that there are too many unknowns to confidently attribute the benefits seen during use to exosomes in over-the-counter topical skin care. "Everyone in clinical dermatology and research dermatology is saying the same thing: We need the science," he says. "We're looking to these companies to produce the data."

"I'd say it feels like the hype outweighs the proven results—maybe about 70% hype and 30% science."

Dr. Marmur agrees. “On one hand, exosomes do represent a novel and promising approach to skin regeneration,” she says. On the other hand, these launches “have outpaced the science.” She continues, “I’d say it feels like the hype outweighs the proven results—maybe about 70% hype and 30% science.”

3. The exosomes in your products are typically from three organic sources.

Humans

Some products are infused with exosomes created from human stem cells or platelets from blood. Dr. Marmur explains that in theory, “human exosomes ‘speak the same language’ as our own cells, making it easier for them to deliver their message and trigger changes like increased **collagen** or healing.” However, the materials inside exosomes derived from organic sources (like human stem cells) vary depending on the exact source.

One example of a product containing human-derived exosomes is **Dr. Barbara Sturm Exoso-Metic Face Serum**. These exosomes are lab-engineered from human DNA originally sourced from accredited tissue banks. According to the brand, they’re produced using recombinant protein technology, a process that inserts a targeted human gene into lab-cultured bacteria. After “reading” the DNA, the bacteria produce exosomes, which are then incorporated into the Exoso-Metic products. The end-product contains no original human material.

Animals

According to Dr. Schlesinger, exosomes are typically derived from humans and plants. However, some products utilize exosomes derived from animal blood plasma. “I know there are some companies looking at canine exosomes,” says Dr. Schlesinger. As with pretty much any product that contains animal-derived ingredients, this raises a host of questions about the animals’ welfare and whether these exosomes are ethical to use.

Some brands use animal byproducts. For example, **Beekman 1802’s Milk Rx Advanced Better Aging Cream** uses exosomes derived from goat milk proteins, collected from the goats raised on their farm. You can take a peek at how they're being treated [here](#).

Plants

Many of these products use exosomes from plants. **Kelly Dobos**, a cosmetic chemist and adjunct professor of cosmetic science at the University of Cincinnati, notes that plant-based exosomes may offer benefits like lower production costs, longer shelf life, and fewer regulatory hurdles. Some experts also suggest that plant-derived exosomes are likely safer than those sourced from humans or animals. A representative from The Inkey List explains that the brand's **Exosome Hydro-Glow Complex** uses exosomes from the *Centella asiatica* (cica) plant, which are “cultivated under controlled lab conditions using sustainable tissue cultures, ensuring a level of consistency and purity that human-derived alternatives simply cannot guarantee at this stage.”

But pros also say plant-derived exosome have their own share of pitfalls. Dobos explains that because the type of plant and the growing conditions can vary, the quality of plant-derived exosomes may be inconsistent. “These vesicles tend to be larger than human exosomes, and less is known about their uptake in human systems, so there are still many unknowns with plant-derived exosomes,” she says.

The dermatologists we spoke to are skeptical about how these botanical options interact with our (obviously human) cells. “The benefits of plant-derived exosomes may not be as biologically targeted or effective in activating the same regenerative responses that human-derived stem cell exosomes potentially can,” says Dr. Marmur.

4. Some exosome products don't have exosomes at all.

There are also lab-synthesized, “exosome-like” ingredients in play. According to Dr. Marmur, some brands aim to mimic the delivery function of an organically derived exosome through a substitute ingredient. “These systems might be more stable, easier to produce, and safer than using actual biological material,” she says. “But again, the effectiveness of ‘exosome-like’ systems will depend on what’s being delivered, how well it’s absorbed, and whether these alternatives will be able to effectively interact with human cells and produce results.”

The process used to create synthetic exosomes (which are essentially protective transportation vehicles that house ingredients) for use in skin care is “old science,” says Dr. Marmur. She likens lab-synthesized exosomes to formulas with encapsulated ingredients or delayed-release delivery systems. For instance, SkinFix uses biomimetic—that is, human-made technology that mimics things found in nature—exosomes in its **Exo + Ectoin Intensive Repair Baume**. Dobos says they are liposomes, tiny fat capsules that have been commonly

used as **delivery systems in cosmetics** for about 40 years. According to **Krupa Koestline**, a cosmetic chemist in Orlando, Florida, synthetic exosomes and liposomes are “90% the same,” with some minor differences. For example, in some cases, Koestline says synthetic exosomes are enhanced with surface proteins to differentiate them from traditional liposomes and improve their targeting.

5. The benefits you're seeing from your exosome skin care might be due to other ingredients in the formula.

One major issue with exosome skin care is that it can be unclear whether the intended effects of the product are actually caused by exosomes or by other ingredients. Exosome skin-care products never feature just exosomes. Ingredients that are proven to do things like increase hydration and support collagen production—**ceramides**, **glycerin**, **peptides**, **squalene**—also commonly make an appearance in these new exosome-infused formulas.

Beyond it not being clear if it's these tried-and-true ingredients or the newly buzzy exosomes that are doing the heavy lifting, Dobos says the data is lacking on which ingredients pair best with exosomes. She explains that there are limited peer-reviewed studies on the synergy of specific ingredient combinations. And even if exosomes do have a glow-boosting effect, it's unclear how much needs to be added to the formula for it to be effective, according to Dobos.

“If exosomes were pistachios, [these products are] like buying a bag of mixed nuts. There might be some pistachios inside, but they're only a small fraction of the mix.”

“True exosomes require strict manufacturing standards and release criteria, while most products contain a broader blend of extracellular vesicles and other secretions,” adds **Saranya Wyles**, MD, PhD, a board-certified dermatologist and researcher at the Mayo Clinic, who specializes in regenerative medicine. “If exosomes were pistachios, [these products are] like buying a bag of mixed nuts. There might be some pistachios inside, but they're only a small fraction of the mix.”

6. The FDA has some thoughts about exosome products.

Exosomes have been making headlines in the United States since roughly 2019, when the FDA issued a [public safety notification](#) regarding the use of unapproved exosome treatments in clinics across the country, noting that the clinics were advertising unproven claims that these exosome treatments could “prevent, treat, or cure various diseases or conditions.” According to [Michele Green](#), MD, a board-certified dermatologist, this notice was likely in reference to injectable exosomes because they are classified as biological drugs and require FDA approval.

Another [FDA consumer alert](#) was released in July 2020, reiterating that the FDA regulates the use of exosomes in regenerative medicine products and that no FDA-approved exosome products exist. A CDC warning regarding stem cell and exosome products (originally published in 2019, but now [archived](#)) specifically noted that the FDA has not approved any exosome products for any uses.

That doesn't mean the companies selling exosome skin-care are inherently breaking any laws or selling products that are unsafe. Topical cosmetics, in general, are not required to be FDA-approved before they are sold unless they contain certain color additives. So, technically, any of your serums and creams that contain hyaluronic acid, peptides, or other active ingredients are probably not FDA-approved either.

7. Other countries don't allow the use of animal-derived exosomes in cosmetic products.

While the US hasn't explicitly banned the use of animal-derived (including human) exosomes, other countries have. In Europe, “guidelines are more stringent. Anything animal- or tissue-derived is not seen as recommended for cosmetic use,” says Dr. Schlesinger, adding that the same goes for Japan. That means the products produced in these countries are made from plants.

8. Using exosome skin-care products comes with a degree of risk.

[Dhaval G. Bhanusali](#), MD, a board-certified dermatologist, explains that while exosomes have the potential to deliver benefits, they may also lead to unintended effects. Sure, they can support collagen production and reduce inflammation, but in theory, they could also increase inflammation or contribute to disease.

Dr. Schlesinger agrees and emphasizes the need for more research. “Right now, it's not that it's unsafe; we just don't know enough,” he says. “We don't fully understand what's in the exosomes or what exactly is causing the effects we're seeing. From a safety standpoint, some people worry that they could cause cancer or other issues. But the truth is, exosomes are involved in nearly every function in the body, both healthy and unhealthy.”

The bottom line is that, due to limited research on exosome skin care, it's unclear whether there's cause for concern. *Allure* editors have tested plenty of these new exosome skin-care products without any immediate negative effects, but generally aren't convinced they're any better than the stuff already in our routines. If you want to give exosomes a try, you're probably safe to do so—just don't expect any skin-care miracles.

Jesa Marie Calaor contributed reporting.

Meet the experts



Special thanks to the additional experts we spoke to for this story



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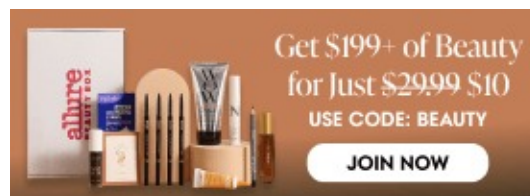
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