

Skincare lifers are applying exosomes, a nano-sized cellular substance, to regenerate their faces

Rebecca Dolan | April 17, 2024



Illustration by Nico H Brausch

Every so often, a new strain of glow-up wisdom in the self-care depths of TikTok and Reddit makes it into the mainstream. The latest deep-end treatment to make the jump is exosome therapy – a hot topic not just for cell biology PhDs, but also clued-in clients at A-list clinics across the world. The treatment went huge last year, with some specialists touting it as the new gold standard for freshening up skin and hair; and even Kim Kardashian (who else?) reportedly posted an Instagram video slathered in the stuff.

In layman's terms, exosomes are tiny particles (nanoscale) that weren't even formally discovered until the '80s. They play a big role in how our cells message one another to reproduce. "If you were a phone, applying exosomes would be like upgrading your 3G to 5G," says Dr Shameema Damree of the London Exosomes Clinic, which offers a range of topical, plant-based exosome therapies. Most living things make their own exosomes, which can contain lipids and peptides, some of the building blocks of glowy skin, as well as messenger-RNA, (mRNA) and micro-RNA (miRNA). But their quality and quantity change as we age. "As we get older, those messages are less effective, and the cells that [follow] are not as good," says Dr Sadequr Rahman, a practitioner at London's Harley Street Skin Clinic.

In recent years, scientists have started experimenting with exosomes – which can be extracted from plants, animals, or even other people – as potential therapies to promote cellular regeneration and anti-inflammatory action. "If we can send signals saying that we want [cells] from the generation before – a younger, healthier version of yourself – they're going to come

out,” says Rahman. Exosomes have also created a big buzz in the world of regenerative medicine; researchers are exploring the potential uses of them in cancer therapy.

As we get older, our bodies naturally produce less collagen, our skin heals less quickly, and our hair grows back more slowly. The idea behind the therapy is that by applying a large number of high-quality exosomes into our skin or scalp (we’re often talking tens of billions), our cells might communicate – and work – better, ie healthy cells make for healthy skin and hair.

As with many novel treatments, Dr Damree says, South Korean companies were the first to market exosome therapy, which has been a popular cosmetic treatment in the country for a few years now, but they didn’t reach the UK and Europe in a big way until recently. Now a range of clinics are promoting the treatment for people who have problems with elasticity, dullness, redness and generally blah skin.

“I’m a firm believer, and I’ve tried the treatment myself,” says Dr Yannis Alexandrides, founder and medical director of cosmetics practice 111 Harley St. Over the past year, he’s added plant-based exosomes – administered via microneedling – to his treatment menu for hair and skin; exosome treatments in his clinic can increase collagen production by up to 300 per cent and elastin production by 100 per cent. A study published in the Journal of the American Academy of Dermatology explored whether exosomes could be used as a novel therapy for hair loss. “It’s the most powerful hair and scalp care in the non-surgical department,” says Alexandrides.

Regenerative treatments are really showing off at the moment. Across the aesthetic industry, more and more people are looking for ways to help the skin renew itself, as they contend with the varied and deeply annoying signs of ageing. Under-eye fillers, for example, have recently been out-hyped by polynucleotide treatments – injectables that purportedly help the notoriously delicate and saggy skin underneath the eye regenerate on its own.

“We’re moving away from freezing the face with Botox and fillers to a more regenerative look,” says Damree. If we think of Botox as an attempt to pin the face in place, exosome therapies are an attempt to help the skin help itself. Damree says her patients often get complimented on their skin after topical exosome treatments, but no one can quite work out what they’ve had done. “They get asked, ‘Have you been to the Maldives? Or, ‘Have you started dating someone new?’”

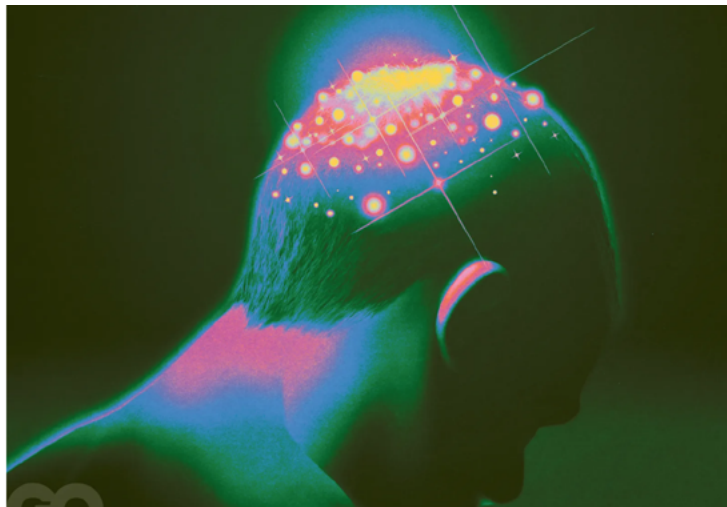


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This claim to “naturalness” is a big deal. Surgical treatments, even those that feel quite minimal, can end up changing the shape of your face over time, leaving patients feeling lineless, but a bit wonky. Many want a youthful glow, but not necessarily to undergo a treatment that leaves a noticeable trace. Think of the Hollywood stars who, after debuting a red-carpet glow-up, can bet on hawk-eyed fans and influencer plastic surgeons doing a fine-line-by-fine-line debrief.

Debbie Thomas, the celebrity facialist who claims Hollywood stars among her client list, introduced exosomes to her London clinic a few months ago. “With exosomes, we’re not changing the structure, we’re not stopping movement, but we’re getting a much healthier and better quality skin, with what is technically quite a minimally invasive procedure.”

Thomas has been practising for nearly 20 years, and offers laser treatments as well as non-surgical alternatives. For several hundred pounds, you can add a topical exosome treatment post-laser and in a little over 10 minutes, a solution of billions of exosomes is applied to your face. The aim is to both calm your skin down more quickly post-treatment and give it an extra glow. “We’re just seeing that the skin is plumper and juicier,” Thomas says.

When Kim Kardashian tried exosome therapy, that too was reportedly post-laser; the resultant coverage seemingly helped propel the treatment into the beauty big league in the US. Kardashian has a long record as a beauty influencer. PRP (platelet-rich plasma) facials – the vampiric treatment that involves using the plasma from your own blood cells with the supposed aim of regenerating skin and hair – received similar attention after Kardashian had one in a 2013 episode of *Kourtney And Kim Take Miami*.

Exosomes, while quite different, are intended to have a similarly rejuvenative effect without the ick factor. “It just comes in the tube so you draw it up, microneedle it. That’s it,” says Rahman, who offers topical exosome treatments derived from the cells of roses at the clinic where he works.

Unlike with Botox, which has been a widely offered treatment for decades now, many doctors are still sceptical of exosome therapy, with its claims about box-fresh treatments. There are also suggestions that exosome products lack a history of effectiveness. “The challenge is the science doesn’t support the way exosomes are currently being created, transported, or clinically used,” says [Dr Steven Williams](#), president of the American Society of Plastic Surgeons.

Current exosome products are expensive and delicate, often requiring refrigeration. Because exosome therapies are so novel and evolving so quickly, there’s also a fair share of wariness around them. While some medical trials have used exosomes derived from human stem cells, and some clinics internationally may even offer them as treatments, exosomes derived from human cells are banned for use in cosmetic products in the UK and EU, and the US Food and Drug Administration hasn’t approved any for aesthetic uses either. The solutions on offer in the UK are prevalently made from plant cells (typically rose).

Williams says that anyone considering exosome treatments should ask their provider for very specific details on what kind of treatment is used, how their exosomes are stored, and what cell line they come from, as well as potential risks and benefits. “The largest risk is that they are wholly ineffective,” Williams adds. Damree also cautions against spending money on skincare products that claim to contain exosomes or stem cells, but aren’t anywhere near clinical grade (ie most of what you’ll find online). “Some of the claims are designed as marketing and less as medical science,” Williams explains.

Even so, the exosomes tide is swelling, as more people want big results with smaller and fewer tweaks. On SkinTok (TikTok's community of skincare obsessives), mini-lectures on exosomes abound, from both influencer derms and patients. Further research and new products are being launched all the time – some for aesthetic purposes, others with pharmaceutical goals – that could yet prove or disprove the exosomes hype. But, as with many modern cosmetic trends, the SkinTokers were there first.

<https://www.gq-magazine.co.uk/article/exosome-therapy-skin-hair-results>