

DYING *to be* PRETTY

The global beauty industry is worth more than \$500 billion and the rise of social media is fuelling a further boom. But as **Genevieve Gannon** discovers, buying creams, powders and pills online is fraught with danger. They could be fake, or even fatal.

The scene of the tragedy was an Adelaide family home on a spring evening six years ago. Nineteen-year-old Louisa Fioretti had been listening to melancholy music and roaming internet chat rooms when something inside her snapped.

She had always struggled with anxiety, but the condition had become particularly acute during her Year 12 studies when her body-image problems mounted and her relationship with food deteriorated. Her phone screensaver was a fit, beautiful woman to keep her focused on achieving the body she wanted.

That day – October 12, 2015 – Louisa had received a parcel from Colorado, USA. It was labelled “Women’s Multivitamin Health Supplement” but inside was a potent weight-loss agent that shady online sellers claim “annihilates” body fat

and appetite. In what is believed to have been an impulsive act, Louisa opened the bottle and swallowed a large number of the weight-loss pills.

The coronial report on what followed makes for harrowing reading. As the pills began to act, Louisa called triple-0 and told them what she’d done. The so-called fat-blasting ingredient was a chemical called DNP (or 2,4-Dinitrophenol).

Paramedic Andrew O’Connor had never heard of it, so as the ambulance sped to the Fioretti home, he researched the chemical with a growing sense of dread. DNP was marketed as a diet pill in 1933, but withdrawn from sale after just five years because of the danger it posed. The compound was initially used in the manufacture of explosives, dyes and wood preservatives.

When Andrew reached Louisa, her first words to him were, “This is going

to get a lot worse.” She showed him the multivitamin bottle and explained that the packaging was a decoy to get the pills through Customs. From her research online, she knew what lay ahead. “You get really hot,” she said. “Your heart beats really fast.”

As Louisa arrived at South Australia’s Flinders Medical Centre just before 8.30pm, her condition rapidly and dramatically deteriorated. The medical team did everything they could to save her, but as NSW clinical toxicologist Kylie McArdle explains, there is no antidote to DNP toxicity.

“Every single intensive care-type life support machine was used for that young girl and she still died very quickly,” Kylie says. “It’s highly toxic. If you get toxic, there’s not much we can do.”

The SA coroner recently reviewed Louisa’s death, but made no recommendations because DNP is →

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already prohibited for human use. Nevertheless, it is creeping into the country. In 2020, the NSW Poisons Information Centre published an article in the *Medical Journal of Australia* about the increasing number of people who have called about DNP toxicity in recent years.

The pattern is mirrored in the UK, where a man was convicted of gross negligence manslaughter last year for selling DNP pills to a 21-year-old woman with an eating disorder. Eloise Parry, of Shropshire, had bulimia when she died from the chemical in 2015.

The BBC reported that, after Eloise collapsed, she sent a text from hospital, saying: “It’s not going to matter how skinny I am if I’m dead.”

Louisa’s case was unusual in that she took a very high dose of DNP, but far, far smaller amounts can kill. There have been three other DNP-related deaths in Australia since 2015.

Despite the dangers, DNP has a thriving life online, where it’s marketed to bodybuilders and young women as a fat-stripping agent. Fitness forums teem with discussions on where to get it and how to use it “safely”. One Reddit user cautions it is “death in a capsule”.

“DNP certainly is a problem,” Kylie says.

Doctors are concerned that anyone searching online for ways to lose weight may stumble across the chemical and not realise what it is. In this way, DNP is symbolic of a much larger public health threat – the online black market for prohibited and counterfeit supplements, pharmaceuticals and cosmetics.

Black-market beauty

Once upon a time, counterfeit perfumes, creams and cosmetics were sold in flea markets where the “element of dodginess” led people to understand the risk, says leading intellectual property lawyer Miriam Stiel. This is no longer the case. Now, fake and potentially fatal products are all just a few clicks away.

Skin creams containing mercury in concentrations thousands of times

higher than the safe amount, formaldehyde in eyelash glue, arsenic in perfume, eyelash serums that change your eye colour, and lipstick laced with lead – the lawless underbelly of the online personal-care marketplace is awash with dangerous goods. There has been a huge upswing in these products being marketed to buyers on Facebook and Instagram.

“The explosion of counterfeit goods on social media platforms is nothing short of staggering,” says research group Red Points. “Social media has become an under-reported but vital hub for counterfeiters very quickly.”

And they’re not easy to identify.

“A lot of these counterfeiters are very sophisticated,” Miriam says. “They go to extreme measures, including putting on things like secure transaction insignias so people think they are genuine.”

The same platforms are responsible for advertising gimmicky products. People have suffered severe chemical burns in their mouths after attempting to whiten their own teeth. The Australian Dental Association has warned against this and the current fad for charcoal toothpaste, which can damage tooth enamel. “You can get anything online,” Australian Dental Association spokesman Dr Michael Foley says ruefully.

Celebrities and beauty bloggers tout charcoal as “eco-friendly, organic, herbal and pure” but “many are too abrasive, wearing away the enamel and damaging gums,” Dr Foley says. Some have been found to contain carcinogenic particles.

Lindsay Lohan and most of the Kardashian clan are among the celebrities who have posted about home teeth-whitening kits on social media, but proper chemical whitening can only be achieved with hydrogen peroxide, which must be used by a professional. “If the whitening product is concentrated enough to have a whitening effect, it can also damage your teeth and gums,” Dr Foley warns.

Dentists are seeing more and more patients presenting with burns on their lips and gums from home

teeth-whitening kits. Dr Foley is aware of a Gold Coast clinic that treats these types of injuries once a week. The kits are “just a bit of plastic that is roughly the shape of your dental arch,” he says. “You just whack this goo in it and put it over the teeth, there’s stuff spewing out over the sides and over your gum. It’s an accident waiting to happen.”

From deadly diet pills to toothpaste that will ruin your teeth, the virtual marketplace hosts a whole spectrum of peril.

Dermatologist Ritu Gupta has seen patients who have developed dermatitis from counterfeit skincare products, and others with muscle paralysis and tissue death from mail-order Botox and fillers. “I saw one Indian woman who had bought a fading cream because she wanted to look white, and it left her with permanent loss of pigmentation on the cheek,” she says.

Dr Gupta wants people to be more discerning when buying online. “Maybe they’ve got a false sense of trust with these [social media] influencers. They think, ‘They say it’s good, so it must be good’,” she muses. “You could be left with permanent scarring. You could have a permanent allergic response and be in hospital for a few days. People have to use common sense ...”

The most dangerous things Dr Gupta sees are mail-order injectables. “There’s a black market there for injectable fillers. People buy botulinum toxin, hyaluronic acid. You can cause blindness. You can cause permanent death to the tissue. All of those things are there. So-called Botox parties are disastrous!”

She recalls one patient who’d had liposuction, and then had the fat injected back into her forehead. “God knows why,” Dr Gupta says. “They had injected it where one of the arteries was.” One half of the tissue died. “It was black. She was lucky she didn’t go blind.”

The woman had the procedure in Korea, but Dr Gupta tells the story to emphasise that the only specialists in skin are dermatologists, and that



WHITER

**Beautiful Teeth,
the Crown of Beauty!**

45% of consumers have purchased a cosmetic through social media, according to a global survey. Of those, one in five people who bought cosmetics online accidentally purchased a fake.

procedures carried out with dubious products by people who are not qualified professionals are risky, to say the least. “There’s a reason things that might be available overseas are not available here, and there’s a reason things are less regulated in developing nations – they don’t have the resources,” she explains.

Deathly pallor

Skin-whitening creams illustrate Dr Gupta’s point. Late last year, the Zero Mercury Working Group released a study of more than 60

skin-whitening creams available for sale around the world, all of which had mercury exceeding the safe level of one part per million.

Some of the products, which people slather onto their skin every single day, contained concentrations of mercury in excess of 100,000 parts per million, and many of them can easily be found on eBay’s Australian platform in a matter of seconds.

Golden Pearl whitening cream from Pakistan was tested and found to contain mercury levels above 10,000 parts per million. Goree Day

and Night Whitening Cream had a mercury concentration of 131,566.67 parts per million.

“That’s some seriously contaminated material,” says Lee Bell, from the International Pollutants Elimination Network.

Exposure to high levels of mercury can cause neurological damage and can harm your kidneys. It’s an insidious toxin that builds up in the system over time. At the levels seen in these products, the greatest threat is to unborn babies. Unfortunately, the nature of the products means women of child-bearing age are a primary market.

“They are effectively slowly poisoning themselves with mercury,” Lee says. “The fact that they’re for sale on eBay means these government officials are not watching this as closely as they should be.”

As with all these products, the global trade makes it immensely difficult for individual nations to police. “It’s a bit of a cat-and-mouse game trying to stop them,” Lee adds.

The insidious nature of mercury poisoning illustrates how it can be hard to identify the source of the toxicity. If someone presents to a doctor with vague symptoms, neither they nor their physician may realise the rash or fatigue is caused by the \$2 lipstick ordered online.

Kylie agrees that this poses a challenge for those seeking to stem the flow of contaminated products. “Not everything is called through to poison centres and not everything is properly coded,” she explains.

Miriam, who works with Border Force to seize shipments of fakes sent from overseas, seconds this. “There have been significant cases where there have been seizures at the factory level where there are harmful chemicals in things like cosmetics, and household goods like toothpaste,” she says. “It’s a huge risk.”

The eyes have it

Sometime prior to 2008, eye doctors treating glaucoma patients began to notice something peculiar. The active ingredient in the eye drops they →

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were prescribing was having a remarkable effect. “All of these 70- and 80-year-olds were coming in with luscious eyelashes,” says optometrist Sophie Koh. “Manufacturers of eye products have pounced on that.”

In 2008, a US company launched Latisse, an eyelash growth serum that utilises the active ingredient in the medication, Bimatoprost. Its best-known side effects include a very small chance that the eye will permanently change colour and unwanted hair growth outside the lash line.

Other side effects observed in testing included a darkening of the skin around eyes, reduced eyeball pressure which is associated with vision loss, and enophthalmos, which is when the eye changes position in its socket, often caused by a change in eye pressure. Australia’s Therapeutic Goods Administration (TGA) also lists a side effect called madarosis, or a loss of eyelashes.

Despite all this, the serum has developed a cult following. Even Dr Gupta says it works. Latisse is not approved for sale in Australia, but a quick scan of beauty forums reveals a hunger for it or, at a pinch, an off-brand equivalent.

Prescription-only glaucoma drops are sold as lash serums in Australia on Gumtree.

The lure of labels

The vast number of online hawkers leaves regulators scrambling to shut down dodgy operations. They could be a major syndicate spread across several continents or just a sole trader in



THE BLACK MARKET BOOM

*Cosmetics caused almost one-third of injuries reported to Australia’s consumer watchdog in 2014.

*Almost one-fifth of online purchases in Australia are for cosmetics, and that number is set to rise to nearly a quarter by 2023.

*The counterfeit cosmetics market is estimated to be worth \$37.5 billion globally.

Sources: ACCC; Red Points research.

an Adelaide basement.

Brands do what they can to reassure their customers. Instagram megastar Kylie Jenner took to Snapchat after personally responding to several online questions about the authenticity of Kylie Lip Kits.

Acknowledging the tide of real-looking Kylie Cosmetics knock-offs, she said she felt it was her responsibility to warn her customers about fakes. “The ingredients they’re using in these fake products are really dangerous, which is my biggest concern,” she told her followers.

M.A.C Cosmetics is one of the most counterfeited brands in the world and vigorously defends its product. In late 2017, M.A.C prosecuted a UK man for selling counterfeit lipsticks that

contained lead at levels 300 times higher than the safe amount. The company said that, if used regularly, the products could lead to high blood pressure, heart and neurological problems, and could impact the user’s fertility, according to a report by *The Telegraph* in the UK.

In his defence, a lawyer for the 47-year-old man told the court he had not known about the dangerous concentration of lead in the lipsticks, and he would never have sold them if he’d been aware of the dangers.

This is precisely the problem with black-market beauty products: none of the items listed above is as deadly as DNP, but the danger with buying items on the black market is that there’s just no way of knowing what you’re truly getting.

“There have been multiple cases of patients who were [in] severe toxicity, at risk of death, who have purchased things over the internet,” Kylie says. “They thought they were buying one thing, and they got another.” **AWW**