



## The Vitamin Drip Debate

Allie Anderson examines the arguments for and against this growing aesthetic trend

### Background

Intravenous micronutrient therapy (IVMT) has enjoyed a surge in popularity in recent years, perhaps thanks to a string of celebrity endorsements. The practice was pioneered decades ago by US physician Dr John Myers, who routinely gave intravenous infusions containing a mixture of vitamins and nutrients to patients with a range of ailments. After his death in 1984, Dr Alan Gaby continued treating some of Myers' patients with an adapted version of what has become known as 'Myers' cocktail' – which is said to have contained magnesium chloride, calcium gluconate, thiamine, vitamins B6 and B12, calcium panthothenate, vitamins C and B complex and diluted hydrochloric acid.<sup>1</sup> Dr Gaby expanded the use of IVMT and it gained in prominence throughout the United States and, soon after, internationally. The treatment is now widely available in a variety of settings, most commonly in cosmetic clinics and medispas, but it can also be administered in offices and in the comfort of the individual's home.

### Reported effects

According to Esther Fieldgrass, aesthetic practitioner and founder of London's EF Medispa, IVMT is potentially suitable for anyone with dehydration, fatigue and nutrient deficiency. "Our patient profiles cover a wide variety of people: those who lead very active lives, frequent travellers suffering jet lag, people in high-stress jobs and some who consider themselves prone to minor ailments," she says. IV infusions are individually formulated, based on an extensive patient history and questionnaire, which are reviewed by a doctor or nurse. "The practitioner may request specific tests – such as urine, saliva and blood – if the patient presents with any health concerns." Fieldgrass

notes that there are some contraindications to treatment, such as "potassium issues, certain cardiac problems or those taking specific medications", adding that around 1% of patients presenting are unsuitable for IVMT. Post-treatment, patients feel more relaxed and energised with enhanced skin and wellbeing, although these benefits are anecdotal.

At Reviv clinics, patients can have IV infusions and booster shots containing a mix of nutrients. Former GP, TV doctor and Reviv's chief medical adviser, Dr Hilary Jones, explains that the IV and intramuscular treatments are designed to combat fatigue, dehydration, sickness, common cold, dry skin and much more. "On average, most people report a benefit within two hours," Dr Jones says. "Your body will be fully hydrated; individuals report increased energy levels for four to seven days and, from a preventative health perspective, no longer suffer from the common cold and flu. A high percentage see a significant difference in their skin and nail condition."

### The evidence

Many studies have been conducted into the efficacy of IVMT, most of which examine its use in particular cohorts of patients with specific conditions. In a 2002 review of evidence, Dr Gaby reported that his modified version of Myers' cocktail "had been found to be effective against acute asthma attacks, migraines, fatigue, fibromyalgia, acute muscle spasm, upper respiratory tract infections, chronic sinusitis, seasonal allergic rhinitis, cardiovascular disease, and other disorders".<sup>1</sup> He concluded that Myers' cocktail (or variations thereof) was safe and effective, but that "most of the evidence is anecdotal".

Fieldgrass and Dr Jones both cite studies of the use of IV magnesium in treating acute asthma.<sup>2,3,4</sup> In a 2000 review of literature describing the effects of IV magnesium sulphate for acute asthma, scientists concluded that although routine use of the therapy in asthma patients presenting to emergency departments was not supported, the treatment appears to be safe and beneficial for others with severe acute asthma.<sup>4</sup> Similar studies claim to demonstrate that IVMT is beneficial for people with fibromyalgia,<sup>5,6</sup> but a later, randomised placebo-controlled trial found no statistically significant differences between patients treated with IVMT and those given a placebo.<sup>7</sup>

Dianne Bedford, practitioner at the Lasky Aesthetics and Laser Center in California, administers IVMT to a range of patients. "Individuals not only want to look good, but feel good as well," she explains. "IV vitamin infusions are a way to deliver beneficial nutrients into the cell to help remedy a variety of concerns and improve overall wellbeing." Bedford describes the majority of her patients as those seeking to boost their immune system and optimise their general health. She says there are benefits to supplementary nutrients because many people don't absorb them sufficiently when they are ingested. "Many factors are needed for optimal absorption and delivery of nutrients, such as optimal gut health, healthy liver function and healthy cell membranes," Bedford comments. "Most patients have some type of gut complaint, such as poor digestion, acid reflux, food intolerance or allergies, thereby decreasing their ability to breakdown and absorb any supplement." In addition, Bedford suggests that certain nutrients are only beneficial to our bodies at higher concentrations. "Vitamin C has been known to have an antiviral effect at serum concentrations of 10-15mg/dl [micrograms per decilitre]. These levels are not attainable with oral intake of vitamin C. Most people take 500mg to 1gm of vitamin C daily, [but] a dose of 2.5gm of vitamin C would raise the serum concentration to about 1.2 to 1.5mg/dl."



A 1990 study indeed found that vitamin C at high concentrations (10 to 15mg/dl) had antiviral properties.<sup>8</sup> However, the study specifically examined suppression of the human immunodeficiency virus (HIV) in vitro rather than as a therapy on real-life patients. A more recent study reviewed and compared placebo-controlled trials involving more than 11,000 participants, and found that regular supplementation of vitamin C failed to reduce the incidence of colds, but was successful in reducing the duration and severity of colds.<sup>9</sup> The study neither stated the upper vitamin C dose limit of the reviewed trials, nor distinguished between the effects of different doses; but it stated that the trials tested doses of at least 0.2g (200mg) per day of vitamin C – the amount available in an average, over-the-counter oral supplement.

## Opposition

Much of the dispute against IVMT centres on the argument that we ought to get all the nutrients we need from our diet. The recommended daily intake of vitamin C in the US is 90mg for adult males and 75mg for adult females,<sup>10</sup> and in the UK it's 40g for all adults.<sup>11</sup> Vitamin C – like many of the others used in IVMT, such as B1, B2, B3, B6 and B12 – are water-soluble, simply meaning that rather than storing them in our cells, our bodies excrete what we don't need. Dr John Quinn, former GP, and founder and clinical director of Quinn Clinics, suggests the case is clear. "I strongly believe that we should be practising evidence-based medicine, and I'm not aware of any evidence that giving someone vitamins, unless they have a deficiency, has any benefit at all," he says. The National Institute for Health and Care Excellence (NICE) recommends certain supplements for some groups who have or are at risk of deficiency,<sup>12</sup> including:

- Folic acid for pregnant women and those trying to conceive
- Vitamin D for children, the elderly, pregnant and breastfeeding women, and people who don't get enough sun exposure
- Specific supplements for medical conditions, such as iron to treat iron-deficiency anaemia

It can be argued that many patients at clinics or spas offering IVMT do not represent these cohorts, and neither are they typically people with acute asthma or HIV, or any of the other conditions and illnesses in which IVMT has been anecdotally shown to provide beneficial effects. Certainly, nutrient deficiencies in the general population are not unheard of. "Some people don't absorb vitamin B12; for example, people who don't eat meat may need to have their levels checked," explains Dr Quinn. "Vitamin D deficiency is also increasingly common and recognised, particularly among the immigrant population, so there are some situations where vitamin supplementation makes sense." However, diagnosing a deficiency relies on blood testing,<sup>13,14</sup> which, some argue, may not be routinely carried out as part of the consultation with patients seeking IVMT. In the absence of a proper diagnosis, the individual may be paying for supplementation they simply don't need. A 2013 article in the *Annals of Internal Medicine*, an academic medical journal published by the American College of Physicians, concludes that "supplementing the diet of well-nourished adults with (most) mineral or vitamin supplements has no clear benefit and might even be harmful".<sup>15</sup> A further issue is the patient's potential response to an infusion's ingredients. Marie Duckett, a nurse and practitioner at London's Fiona and Marie Aesthetics, says: "I would be concerned whether practitioners know if their patients are tolerant to everything that's in it." She also raises concerns of the industry offering a "quick fix"

that's without sufficient evidence to prove its efficacy. "I don't like the fact that we can trivialise things that shouldn't be trivialised. A vitamin drip to improve the quality of your skin seems, to me, a step too far. I feel there's an element of the emperor's new clothes about this." For Duckett, the answer to achieving the health benefits that IVMT purports to deliver is simple: "Get enough sleep, get enough exercise and eat a healthy diet." Dr Quinn highlights a potentially more significant problem. "When someone has an intravenous drip there is always a risk of severe allergic reaction or even anaphylactic shock," he says. "There's a very strong argument that anyone having an IV infusion should be in hospital, and not in an aesthetic clinic – so there is a safety issue here as well."

Notwithstanding these risks, IVMT has an expanding fan base and there is a growing body of anecdotal evidence supporting its use. The suggestion of a placebo effect may not be without basis: it is said to be a factor in complementary and alternative medicines, where the time taken over consultation, the approach of the practitioner and the patient's expectations all affect the impact of a treatment.<sup>16</sup> Indeed, the very nature of how the treatment is delivered – the patient sitting or lying comfortably for 30 to 60 minutes in a relaxing environment – could itself contribute to the patient feeling refreshed and vitalised. For people who lead busy, stressful lives, the treatment provides a rare opportunity just to stop for an hour, without the usual distractions that prevent them from winding down. Many argue that if a treatment makes people feel better, through whatever means, then it can be considered worthwhile. As the popularity of IVMT continues to grow, it is unlikely this debate will subside any time soon. Whether you choose to adopt the treatment in your clinic or not, thorough research and safe practise are key components to successful treatment outcomes and patient satisfaction.

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