

IT'S TIME TO INVEST IN LED



We talk to Aesthetic Bureau's Director **TREVOR NEALE** about the many benefits of offering LED services.

Trevor, you've been in the aesthetic device industry for decades, what excites you about this industry?

It is really the physics and technology that excite me. I'm especially passionate about the use of light in Aesthetic Medicine. Light or photoradiation, the only form of energy we can see, is the source of all life on earth. The way that light interacts with the cells and tissues of our body is fascinating. Within our bodies it can translate into electrical signals and hormone signals; it can even change gene expression. It's been studied and tested across thousands of peer-reviewed clinical trials, and the results are overwhelmingly positive across multiple applications. Its anti-inflammatory and circulation-boosting effects have implications for a wide variety of pathologies, and these powerful effects have been shown to positively impact our skin and overall health in myriad ways. Being at the frontier of this science is a privilege, and we are constantly expanding and refining our knowledge about this fascinating modality.

LED has been around for a while, but is experiencing high popularity at the moment, why do you think that is?

I believe it has a lot to do with what Australians (and the rest of the world) have had to go through in the past two years. As the world continues to battle the COVID-19 pandemic, people have become much more health conscious, and are continuing to place more emphasis on wellness and self-care. While LED is Instagrammable and looks like a fad, the science behind it has existed for decades. The other factor propelling LED's popularity is the growing preference toward non-invasive treatments. And we're also seeing more interest in 'low touch' therapies in our post-COVID world.

What should practitioners look out for when deciding which LED device to buy?

The three primary things practitioners should be concerned with are wavelength, output (mW/cm²) and recommended treatment time, as these determine the dosage of medically optimised light and consequently the effectiveness of the treatment. It should come as no surprise that studies find no effects from light therapy when using insufficient dose or the wrong light frequencies: Too low and cells experience no biological changes; too high and you cancel out the benefits (a phenomenon known as biphasic dose response). Research shows that the most positive results occur in the upper end of the intensity range, with cells potentially benefitting from deeper penetration and deeper systemic effects of higher doses of energy applied to larger surface areas of the skin. Aesthetic Bureau's Xen devices are meticulously engineered to output the right amount of power density for maximum benefits based on our research



Aesthetic Bureau's Total Xen

and knowledge of the dose-response relationship. We are also the only ISO 13485:2016 certified Australian manufacturer of light-based medical aesthetic devices. This means we have appropriate controls in place within our quality management system for medical devices and related services.

Why should clinics offer a full body LED treatment instead of just a face one?

There is a much wider range of physiological and health benefits associated with increased size, power and coverage of LED treatments. Full body LEDs provide more light energy (450kj compared to 45kj) and deeper systemic benefits. You can treat the whole body in one short session, reduce oxidative stress, and stimulate cell renewal and cell repair by increasing the metabolic activity of injured cells. This has positive impacts on disease prevention as it treats and improves a multitude of conditions. Now is a great time to capitalise on the growing health and wellness trend that we are seeing post-COVID. Moreover, full body LEDs help aesthetic practice owners tap into other markets and expand their reach and market share. Our Total Xen LED is used by professional athletes like the Manly Sea Eagles for its ability to help improve performance, muscle recovery, tissue healing, as well as support mood and sleep. There are over 500 human clinical trials demonstrating these benefits, so the science is robust.

What do you think of at-home LED products?

As mentioned before, the effectiveness of an LED therapy device is directly correlated with its power output. For liability reasons, most at-home LED devices are weak as they legally must carry very low to no risk of cumulative eye damage. This becomes obvious when you realise that most smaller devices and face masks do not require a heat sink to dissipate heat, since they don't produce high enough output to generate any heat. Low power means low quality results. In addition, most of the at-home devices generally have not been subject to the same rigorous testing that other professional devices have. Many of them utilise other colours (wavelengths) that don't have enough clinical evidence behind them. Consumers need to have realistic expectations about at-home LED devices and understand that most of these products will require very long-term consistent use and likely only yield modest results.

Aesthetic Bureau are exhibiting at Beauty Expo Australia 2022 taking place from 20-21 August at ICC Sydney. Find us on stand #F125.

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