

# EMERITUS PROFESSOR LAURENCE WALSH REVIEWS NEW COLGATE® OPTIC WHITE® LIGHT UP



## THE BACK STORY

Today there are quite a few different options available in the at-home tooth whitening space. Using carbamide peroxide or hydrogen peroxide gels in custom-made vacuum formed trays has been the norm in dental practice since the 1980s. **Every so often, something comes along which represents a significant improvement in that overall approach.** Colgate, who revolutionised the consumer tooth whitening market with the first paint on product (Simply White) have now come up with a clever way to extend the concept of a paint on product, and combine it with an LED array to boost the overall effect.

## CLICK AND GO

Clicking the pen twice gives enough serum to do up to 4 teeth. After using the pen, a simple wipe of the bristles using a dry tissue is sufficient to keep them in shape before replacing the cap on the pen.

To make sure there is no saliva on the teeth to be bleached, immediately after brushing, I used tissue paper to blot dry both the enamel surface and the labial gingiva.

After one or two clicks from the pen, the serum appeared as a droplet that was trapped in the fine bristles at the end. I then just simply painted the serum directly onto the enamel surface of the teeth. As the solvent evaporates, which takes around 10 to 15 seconds, I could see a thin clear coating was left behind.

The binding agents in the serum localise the hydrogen peroxide against the tooth surface, and also

protect it from inactivation and dilution by saliva. This is quite an important technical improvement over the early paint on products.

**Painting the serum on allows selective treatment of different teeth to be done.** Some patients will have uneven shades of their teeth, and may only want to paint the serum onto certain teeth that have darker shades, in order to bring them to a shade that is more consistent with the other teeth.

**I found that it was easy to control the serum as it comes out from the bristles of the pen because it is moderately viscous in nature, and binds well to the dried tooth surface.**

## LET THERE BE LIGHT

Once the serum had dried, it was then time to use the next component from the system, which is the LED illuminator. **This LED array gives an even distribution of light around the anterior teeth because of the diffuser that it uses.**

**When using the LED light, I did not experience any heat sensations on my gingival soft tissues or in my teeth.** After use, the LED device is simply rinsed off in running tap water and left to dry, ready for a recharge or for its next use.

Visible light can improve the results of bleaching through a range of different mechanisms including photochemical and photothermal processes. I did notice that the colour of the light produced by the **LED array in the Colgate unit was different from that of other LED oral lamps that I have seen. The wavelength was shorter** (more towards the indigo end of the spectrum, rather than towards the light blue region). **Shorter**

**wavelengths of light carry more energy and are better for activating photochemical processes.**

In the normal use protocol, after the LED illuminator is removed, the dried layer of whitening serum is left on the teeth overnight. As it doesn't dissolve in water, you can still have a drink of water before you go to sleep. The dried serum comes off easily when the teeth are brushed the next morning. Leaving the whitening serum to sit on the teeth overnight improves the overall outcome because it gains exposure time, which allows the radicals from the peroxide to penetrate into the enamel.

## REFLECTIONS OVERALL

In using this new system for some time, I found it very easy to use and quite convenient. As there is no vacuum form tray involved, the overall approach is very simple, as there are no impression or laboratory fabrication steps.

**This system seems to breach the principle of “no pain, no gain”** which has often been the case with tooth whitening products in the past. **Freedom from sensitivity is something that all patients will value.**

I did not notice any discomfort from the teeth or the soft tissues during the treatment. There were no unpleasant tastes from the tooth whitening serum.

The total package seems to be a very nice way of achieving effectiveness and safety with minimum hassle, with only a few minutes work involved. It certainly deserves a big thumbs up to the design team who were responsible for this product.

**“FREEDOM FROM SENSITIVITY IS SOMETHING ALL PATIENTS WILL VALUE”**