

A brighter future...

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Brian R Davies

Keeler

The light fantastic - Keeler's new LED Headlamp

Wouldn't you like to see all the structures in the mouth without shadowing, eyestrain and in real comfort? No more having to crane your neck and lean at awkward angles to see what is going on?

As dental students I know you want to achieve the highest possible standards of operative care for your patients and develop good working habits that will serve you well throughout your practising life.

This is not a new quest, for as you see in the picture a student is wearing a home made device originally used by Cyril Walmsley, who practiced in Kingston-upon-Thames from 1927-1986. This crude arrangement comprised an ENT headlight containing a bulb attached to a step down transformer and shows one early attempt to improve vision within the oral cavity.



Now with the development of LED (Light Emitting Diode) technology it is possible to produce illumination of vastly superior intensity and minimal power consumption.



This allows for a truly portable light source, which can be easily worn in a tunic pocket, allowing total freedom of movement for the dentist. Designed to be used with Keeler Magnifying Loupe systems the Keeler K-L.E.D. headlamp vastly improves operator comfort through better working posture, reduced eye strain and a clearer working perspective.

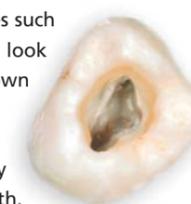
The light is simplicity itself to use. The two battery packs are first charged using the mains powered charging pack. One is connected to the LED light via a discrete cable and attached to the spacer bar on the loupes frame. Cable clips are provided to secure the cable to the frame sides if desired.

Our experience of using the unit is that one pack lasts for up to 4 hours at a time which is plenty for a typical surgery session. When the light loses its intensity you change over to the second battery pack, placing the first back into the charger.

For the technically minded, the batteries are Li-Ion and contain no toxic metals. They take approximately 2 hours to fully charge in charging well 1 and 4 hours in charging well 2. This allows for a flexible charging cycle with the facility to boost a low battery for additional use during an afternoon session if needed.

What can you expect in terms of visual acuity? This set up comes into its own

during close procedures such as Endodontics. Have a look at the access cavity shown in the molar tooth and imagine having this degree of predictability so far back in the mouth. The light is what can be described as 'hard white' in character although at the time of writing I don't have a value for the wavelengths of the output.



What do some users think of it?
Dental student Richa Sharma: "....found it helpful having the light directly over the field I'm working in-would definitely look to buy one "

Dentist Sally Pearce: "I now cannot live without my Loupes and light set-up"

Dentist Paul Nolan: "When asked how I felt about my light my immediate reply was - I love it!"

Keeler's new light system looks to be a winner. The hazards of back and neck pain arising from poor posture are now well recognised. Low-level trauma often goes unnoticed possibly leading to repetitive strain injuries and a host of associated disorders that can prematurely end a dental career. The use of magnifying loupes and illumination along with ergonomic strategies can reduce or completely avoid such mishaps.¹

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For more information on Keeler Loupes Freephone 0800 521251

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Reference ¹: "Ergonomic: muscle fatigue, posture, magnification and illumination." *Compendium of Continuing Dental Education in Dentistry* 23(3): 261-6