Get Enlightened About LED Curing Lights

Curing Lights Over the Decades

1964: Light-curing composites are introduced, requiring dentists to adopt curing lights

Mid to late 1970s: UV curing lights are phased out and replaced with visible light-curing devices

1990s: Curing lights improve in energy output; plasma-arc curing (PAC) lights are introduced with drawbacks of high cost and high heat production

Late 1990s: First generation of LED curing lights is introduced

2009: 3M™ ESPE™ Elipar™ S10 LED Curing Light is introduced, offering a moderate cost and fast curing

2012: More than 90 percent of curing lights on the market are produced as LED

LED Curing Lights By the Numbers:

Improved Curing in Deep Restorations

7mm:
A typical distance between the light guide and material in a deep cavity. An advanced LED light can maintain a focused light output, even at this challenging distance.

Available Exposure Time

60 minutes:
Average exposure time for LED curing lights between full charges, which is the equivalent of 360 10-second cures.

Intensity

\[ \geq 1,000 \text{ mW/cm}^2 \]
Consistent energy outputs provided by the latest generation of LED lights

Versatile and Adaptable

8mm:
A tip of this diameter is versatile enough for most restorations. Some situations may call for a wider tip; dentists should look for a light with additional options.

Smart in the Operatory

- Consumes less energy
- Most are lightweight
- Many are cordless
- Designs with stainless steel are easy to clean
- Moderate cost in comparison to other types of curing lights

"I anticipate that continued upgrading and improvement in LED lights eventually will make this concept the most used method for curing restorative resin."

-- Dr. Gordon Christensen*

"Using a name brand, high quality LED curing device can change your clinical outcomes and decrease stress and frustration."

-- Dr. John Flucke**

**Flucke, John. Get the Right Light to Provide the Cure. Dental Products Report, 2012 June