



Academy of Prosthodontics 2019 Annual Scientific Session Fairmont Banff Springs Hotel, Banff Canada May 29 – June 1, 2019

Program Speaker – Jean-François Roulet

Title

Light Curing Materials, Especially for Indirect Restorations

Abstract

Light curing units (LCU) are not alike. Their price varies by a factor of more than 50x. So does their performance. High quality LCUs have a large light output window in the correct angle to reach everywhere in the oral cavity, a homogenous high exiting irradiance all over the cross section of the light beam, and good lithium battery management to allow stable irradiance values.

Accurate irradiance results by positioning the light output window parallel and close to the restorative material in the correct angle to avoid shades, stabilized by fingers, and observed through an orange filter (eye protection). The dentist must know the depth of cure which is determined by the LCU and the absorption characteristics of the resin composite/cement and their translucency and shade. Finally ceramics absorb light considerably even in thin layers. Thus dual cured resin cements may be used depending on the ceramic material and the type of restoration.

Learning Objectives

1. Understand how a light curing unit functions in order to make the best choice when buying it.
2. Know that light cured resin composite/resin cement needs appropriate radiant exposure to perform as intended by the manufacturer and realize that the operator can negatively influence this outcome.
3. Know that not only the resins to be cured, but much more the restorative materials (ceramics –for indirect restorations, resin composite blocks, resin composites/cements) and the teeth absorb the light considerably, thus reducing the radiant exposure.

Biography

JEAN-FRANÇOIS ROULET

Jean-François Roulet graduated from the University of Bern 1974 and received his Dr.med.dent 1977. He obtained his Habilitation (PhD) 1986 from the University of Zürich. 1984 he became chair for Operative Dentistry at the Free University Berlin, was Associated Dean 1985 – 91 and Dean from 1991-94. 2003 he left the University and became the Director of Research and Development Clinical with Ivoclar Vivadent in Schaan, Liechtenstein. After retiring in 2011 he became Professor at the University of Florida in Gainesville and served as chair Chair of the Department for Restorative Dental Sciences. Since 2013 he is Director of the Center for Dental Biomaterials. Prof. Roulet has supervised more than 160 Theseses, published more than 200 research papers and many reviews, book chapters and books. Since 1972 more than 900 lectures or courses were given at national and international congresses. He has served as editor of 4 scientific journals.