



The American Prosthodontic Society  
Promoting the Advancement of Prosthetic Dentistry Through Clinical Research and Education

## The American Prosthodontic Society 2021 Webinar Series - May

**Speaker – Carlo E. Poggio, DDS, MSc, PhD**

### **Title**

Vertical Preparations and Digital Workflow

### **Abstract**

Tooth preparations without a defined finish line have been termed in several different ways, such as knife edge, feather edge, or shoulderless. With slight differences between each other, all this preparation types may be defined “vertical” as opposed to “horizontal” ones (shoulder, chamfers) and since the introduction of metal ceramic they have been almost abandoned, with limited exceptions (i.e.: periodontically involved abutments). From a biological standpoint, preserving a maximum amount of sound tooth structure, as it is done in vertical preparations, might also offer a more conservative alternative to a horizontal margin design in other clinical conditions such as endodontically treated teeth, vital teeth in young individual, teeth affected by caries at the cervical third. Vertical margins on zirconia crowns have been tested in vitro and clinical reports have been published. A re-evaluation of possible advantages and shortcomings of vertical preparation design in contemporary prosthodontics will be presented in light of recently published literature

### **Learning Objectives**

1. To define geometrical and biological characteristics of vertical preparations as compared to horizontal ones
2. To analyze current in vitro literature regarding zirconia and vertical preparations.
3. To evaluate available clinical data regarding zirconia and vertical preparations.