The Dental Board of California

Dental Materials Fact Sheet

Adopted by the board on October 17, 2001

As required by Chapter 801, Statutes of 1992, the Dental Board of California has prepared this fact sheet to summarize information on the most frequently used restorative dental materials. Information on this fact sheet is intended to encourage discussion between the patient and dentist regarding the selection of dental materials best suited for the patient’s dental needs. It is not intended to be a complete guide to dental materials science.

The most frequently used materials in restorative dentistry are amalgam, composite resin, glass ionomer cement, resin-ionomer cement, porcelain (ceramic), porcelain (fused-to-metal), gold alloys (noble) and nickel or cobalt-chrome (base-metal) alloys. Each material has its own advantages and disadvantages, benefits and risks. These and other relevant factors are compared in the attached matrix titled “Comparisons of Restorative Dental Materials.” “A Glossary of Terms,” is also attached to assist the reader in understanding the terms used.

The statements made are supported by relevant, credible dental research published mainly between 1993-2001. In some cases, where contemporary research is sparse, we have indicated our best perceptions based upon information that predates 1993.

The reader should be aware that the outcome of dental treatment or durability of a restoration is not solely a function of material from which the restoration was made.

The durability of any restoration is influenced by the dentist’s technique when placing the restoration, the ancillary materials used in the procedure, and the patient’s cooperation during the procedure. Following restoration of the teeth, the longevity of the restoration will be strongly influenced by the patient’s compliance with dental hygiene and home care, their diet, and chewing habits.