

What is Biomimetic Dentistry?

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In traditional dentistry, when repairing teeth we are taught to necessarily destroy a lot of healthy tooth structure to get to a decayed area and repair it, or cut the tooth completely down in order to place a cover (crown) or partial crown over a tooth to keep it from breaking in the future. In doing so, the pulp (nerve) inside the tooth becomes traumatized, often times resulting in pulp death requiring either a need for extraction or root canal treatment.

The word "Biomimetic" is derived from two terms: "biology," the science of life or living matter in all its forms, and "mimic," to imitate or copy. With the advent of adhesive "bonding" technologies in dentistry over the past few decades, materials and techniques have been developed that allow for the removal of almost no healthy tooth structure, followed by adhering tooth-colored material onto, or within the decay removal area that both strengthens and mimics both the form and color of the remaining healthy tooth. Depending upon the individual needs of a tooth, it can be repaired either with bonding material applied directly to the tooth, or with conservative inlays/onlays (partial repairs within or over the tooth) fabricated in a dental laboratory.

Biomimetic Dentistry could be therefore be described as "the use of modern science to provide conservative restorative treatment that gives the best chance of preserving the integrity, form, esthetics and function of a natural tooth."