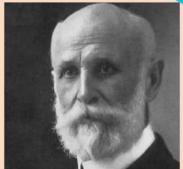


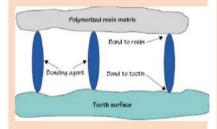
ADHESION AND MINIMALLY INVASIVE DENTISTRY

PRESENTED BY: SANA MOHD JAVID SHAIKH, VIDHI BHUVA, VISHWASH PATEL(IDS 2024)

DEPARTMENT OF PREVENTATIVE AND RESTORATIVE DENTISTRY, UNIVERSITY OF THE PACIFIC, ARTHUR A. DUGONI SCHOOL OF DENTISTRY, SAN FRANCISCO







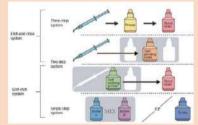
PAST

EXTENSION FOR **PREVENTION**

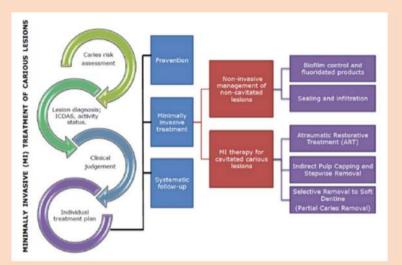
MINIMALLY INVASIVE?

·Tissue is sacred, and we must try to preserve as much natural tooth structure as possible during operative procedures.

ADHESIVE SYSTEMS

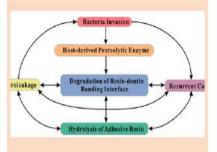


PRESENT



Minimal Invasive restorative techniques have well documented advantage over more tissue-destructive traditional restorations by minimizing unnecessary tooth tissue loss, insult to the dentine-pulp complex and reducing the risk of iatrogenic damage to adjacent hard and soft tissues.

FUTURE



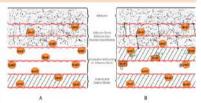


Figure 2. Schematic drawing presents the mechanism of MMPs-inhibiting adhesives. (A) The common condition of resin-dentity bonding; (B) The different way of inhibiting MMPs. (a) Cross-linking of collision. (b) Changing conformation of MMPs. (c) Electrostatically binding to catalytic site of MMPs. (d) Entrapping MMPs and collagen in the newly-formed crystal

Reduced micro permeability.

Remineralization

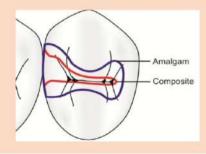
No loss in bond strength

Experimental adhesive

Second generation dendrimer (G-IEMA) G2- isocvanatoethyl methacrylate has shown promising results in improving the the adhesive interface.

VASCONCELOS E CRUZ J, DELGADO AHS, FÉLIX S, BRITO J, GONÇALVES L, POLIDO M. IMPROVING PROPERTIES OF AN EXPERIMENTAL UNIVERSAL ADHESIVE BY ADDING A MULTIFUNCTIONAL DENDRIMER (G-IEMA): BOND STRENGTH AND NANOLEAKAGE EVALUATION. POLYMERS (BASEL). 2022:14(7):1462, PUBLISHED 2022 APR 3, DOI:10.3390/POLYM14071462

CHANGE IN TRENDS

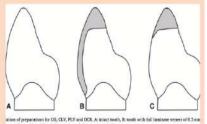




RESIN BONDED INLAY RETAINED BRIDGES



VENEERS



ap and I mm bevel (partial ceramic and direct composite).