

SMART MATERIALS, SMARTER FUTURE!

Smart materials respond to the dynamic environment of the mouth, making dental treatments more effective and resilient. Their use is enhancing everything from fillings to braces, improving patient care.

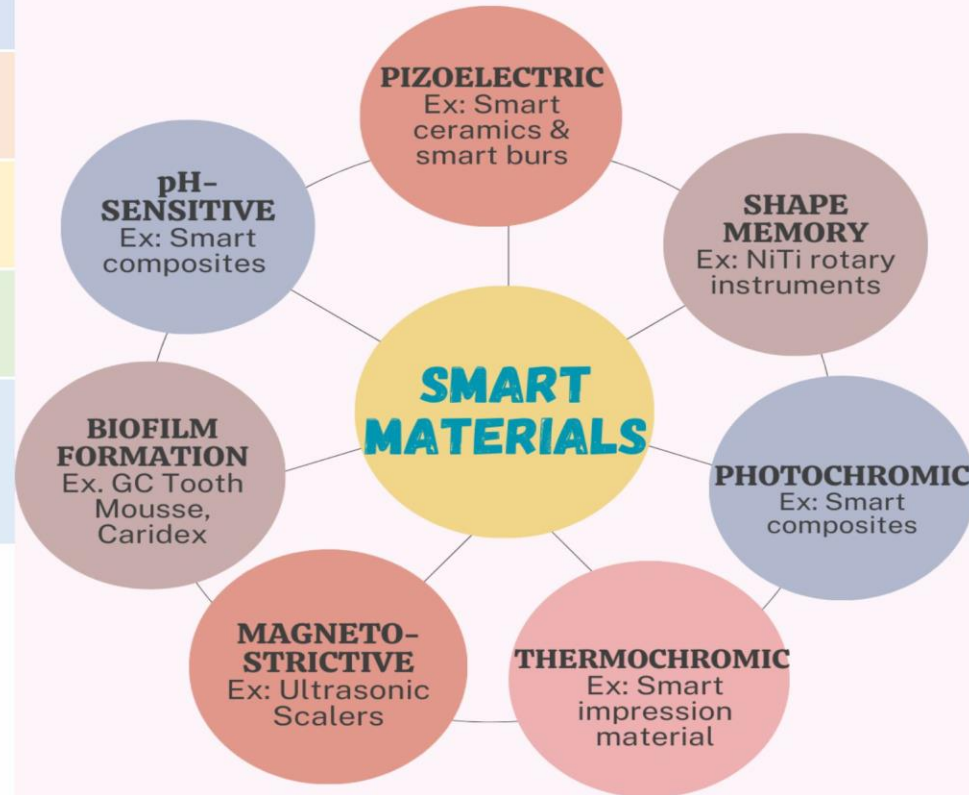
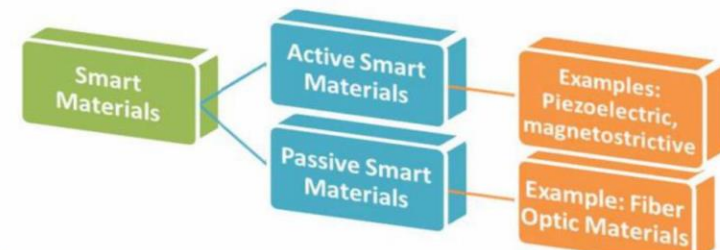
SMART GIC (Fluoride Releasing GIC)

SMART COMPOSITE (pH sensitive and light activated)

SMART CERAMICS (Fracture toughness & Flexural strength)

SMART NITI FILES (Super Elasticity & Shape memory)

SMART SEAL OBTURATION SYSTEM
(Hydrophilic property helps in absorbing moisture and fill voids)



SMARTPASTE BIO (Hydrophilic which makes the points swell & fill the voids)

SMART IMPRESSION MATERIALS
(Hydrophilic, Thixotropic)

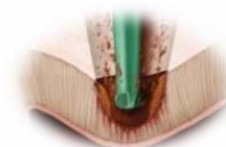
SMART BURS (Cut only Infected dentin)

SMART SUTURES (When temperature is raised than transition temperature, it shrinks & tightens)

SMART FIBRES FOR LASERS
(Monochromatic, Coherent, Collimated)



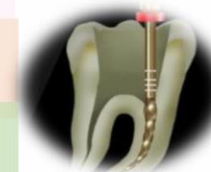
Smart Seal



Smart Burs



Smart Impression Materials



Smart NiTi Files



Smart Composites



Smart Suture

CONCLUSION: The use of smart materials is revolutionizing dentistry, providing improved treatment outcomes & shaping the future of oral health care.

REFERENCES: 1. Maloo LM, Patel A, Toshniwal SH, Bagde AD. Smart Materials Leading to Restorative Dentistry: An Overview. *Cureus*. 2022 Oct 28;14(10):e30789. doi: 10.7759/cureus.30789. PMID: 36457623; PMCID: PMC9705074.
2. Ganeson K, Tan Xue May C, Abdullah AAA, Ramakrishna S, Vigneswari S. Advantages and Prospective Implications of Smart Materials in Tissue Engineering: Piezoelectric, Shape Memory, and Hydrogels. *Pharmaceutics*. 2023; 15(9):2356. <https://doi.org/10.3390/pharmaceutics15092356>