

SENSORS IN REMOVABLE DENTAL APPLIANCES

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Removable dental appliances are custom-made devices that patients can insert and remove themselves to correct tooth alignment, replace missing teeth, or treat sleep-related conditions. They are typically made of acrylic resin and stainless steel wires or clear medical-grade plastic.

Sensors in removable dental appliances have evolved from simple timers into advanced monitoring systems that track everything from wear-time compliance to real-time biochemical changes in saliva. These embedded devices allow clinicians to transition from subjective patient reports to objective, data-driven treatment models.

Embedded biosensors can transform a standard dental appliance into a continuous health-monitoring platform. The integration of sensors into removable dental appliances represents a shift from mechanical correction to proactive health management. While the technology is already revolutionizing orthodontic compliance, its future lies in becoming a non-invasive window into a patient's systemic health.

Keywords: sensors, dental appliances, advanced monitoring systems, health-monitoring platform