

Implant Tooth

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Technology description

Invention Summary

Dental implants do not come with a tooth. Instead, teeth are fashioned after the implant is surgically placed into the bone. As fabrication of the tooth does not begin until after the implant is placed, each dentist must create a custom temporary implant while the permanent implant that replicates the original tooth is fabricated. It's critical to place a temporary tooth, if possible, on the new implant to ensure the emergence profile is maintained. The "Implant Tooth" is a thermoplastic resin with fibrous reinforcement for the temporary customization of a stock tooth to fit in to the customized positions of any implant. The thermoplastic is heated and when heated can be made malleable to fit into the contours of any dental position that is needed to accommodate custom implants. The entity is screw retained and when the temperature of the thermoplastic "Implant Tooth" cools the material becomes rigid for chewing.

Market Opportunity

According to BCC Research, dental offices average around 92 implants per year. In 2013, this represented approximately 4 million dental implants. Assuming every procedure used a stock tooth and each tooth cost \$100, the total yearly market size would be \$400 million.

This technology comes in different shades and sizes meaning dentists would need a relatively large supply to ensure they chose the appropriate tooth for each procedure. This would cause initial revenue to be quite high as dentists bought an entire stock of teeth and then replaced them as needed.

Based on an IBIS World report, the dental industry is growing at a compound annual growth rate of 2.3%. However, that rate is expected to increase to 5.7% between 2016 and 2021. Furthermore, the number of individuals with health and dental insurance is increasing which may increase the number of implants done each year.

Advantages

Saves dentist time

Improves patient satisfaction

Reduced cost as does not require molding or caulk-like material

Correlates with an ideal emergence profile

Predictable color and contour outcomes

Institution

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