

# Conical internal connections will fuel growth in dental implant market

**Authors** Dr Kamran Zamanian & Ian van den Dolder, iData Research Inc., Canada

## Introduction

The dental implant and bone graft substitute market is the most rapidly advancing segment of dental technology, and leading competitors in this market must consistently develop new products supported by research from scientific and academic organizations to remain competitive. Recent cases have demonstrated that when companies lose a segment of support from the scientific community, their market shares tend to suffer significantly.

The European dental implant and bone graft substitute market has been further challenged by recent economic instability and the eurozone crisis, which has created a consistent demand for lower-cost dental implant products. As a result, many lower-priced competitors have begun to seize larger market shares in almost every European market. In many segments, these competitors are either regional or sourced from overseas markets such as Brazil, Korea and Israel. Regenerative products and barrier membranes have been particularly affected by consumer austerity, as these products are discretionary in many cases. However, a growing number of consumers continue to demand high-quality products, guarantees of service and scientific improvements, which only premium manufacturers are equipped to offer. Conical internal connections is one such recent innovation, and currently constitute the fastest-growing connection type in the dental implant industry.

Many dental implant and bone graft substitute companies have looked to expand their product portfolio or create

new markets while they create package deals to offset competition from rapidly emerging lower-priced competitors. Significantly, many European and US companies involved in this market have begun to invest in rapidly emerging periphery markets such as Turkey.

## Increasing prevalence of conical internal connections

Dental implants are connected to final abutments in one of three ways: internal connections, external connections or single-unit devices in which the implant and abutment are already attached. Furthermore, internal connections have two subsegments: butt-joint internal connections and conical internal connections. Research has shown that a lack of intimate fit of the implant in the abutment or movement of the implant can provide an area for bacterial growth. Conventional butt-joint connections provide a connection that can result in micro-movement between the implant and the abutment, creating a pump effect for bacteria into the connection area. When bacteria are present in the micro-gap, they can cause inflammation, tissue recession and bone loss. Recent clinical studies have demonstrated that, on average, conical connections offer a smaller micro-gap than butt-joint connections, in addition to a greater mechanical level of stability. As a result, conical connection types have become hugely successful in the dental implant market, and the majority of leading dental implant manufacturers have introduced conical internal connection products. Conical connection types will continue to represent one of the fastest-growing segments of the dental implant market.

Implants with internal conical connection like the NobelReplace CC shown in this picture have become more popular, according to iData Research. (Photo courtesy of Nobel Biocare, Switzerland)



### Industry leaders identify Turkey as one of the fastest growing dental implant and final abutment markets in the world

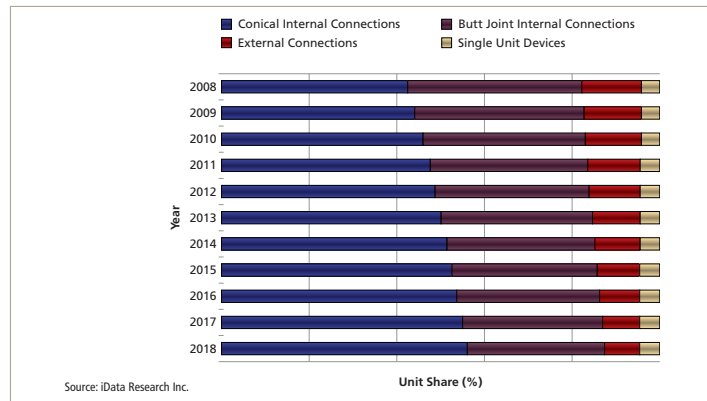
Turkey is one of the fastest-growing dental implant markets, congruent with strong economic growth that weathered the recession far better than the US and nearly any region in Europe. The technology of dental implants in this country has advanced rapidly, as most of the major players in the European market moved quickly to gain a strong market share in Turkey. Additionally, this market benefits from low labor costs, which adds to the incentive for implant companies to establish domestic subsidiaries or local distribution partners, fueling options for consumers. Turkey is also a popular destination for dental tourism, especially among patients from more expensive European markets. From 2008 to 2018, the Turkish dental implant, final abutment and computer-guided surgery market is expected to grow at a compound annual growth rate of 20.4%.

In May 2011, AGS Medikal Ürünleri, the first major Turkish company to produce dental implants, commenced operations in the province of Trabzon, on the coast of the Black Sea. The company was established with an initial 5 million Turkish lira investment. Market experts predict that the company will soon be joined by other Turkish dental implant manufacturers that will offer lower-priced products to compete domestically and later internationally with larger implant companies.

### EU medical tourism directive will strongly impact the European dental implant market

The EU directive on cross-border healthcare that comes into force in 2013 will have a strong impact on the European dental implant market. This directive will target the medical tourism market, which is significant, as dental treatment procedures account for nearly half of medical tourism in most major markets. The directive gives patients the right to be reimbursed for treatment they receive in other EU countries. This could lead to more Western Europeans traveling to Eastern Europe, including Poland and Bulgaria, which are rapidly developing the quality of the medical services they offer.

The UK features one of the highest rates of outbound dental tourism, as patients are unaccustomed to large out-of-pocket costs for procedures, owing to the legacy of the National Health Service. Whereas rich patients from developing countries used to come to prestigious hospitals in the UK and elsewhere for treatment, outbound medical travel from the UK has been growing far faster than inbound over the past decade, as UK patients are increasingly traveling abroad for lower-cost care. Figures suggest more than 50,000 citizens of the UK go abroad for treatment annually. The number



of outbound medical tourists from the UK rose by 170% from 2002 to 2009.

### Dental implant companies follow success of conical internal connection

Internal connection types as a whole are becoming increasingly dominant in the dental implant market. Conical internal connections and butt-joint internal connections represented 83.4% of implants with an internal connection in 2011. Conical internal connections is the fastest-growing segment of the market and expected to increase at a compound annual growth rate of 10.1% by 2018. NobelActive (Nobel Biocare) was one of the foremost early successes of conical connection types, and was rapidly adopted by consumers owing to clinical results demonstrating its greater stability and smaller micro-gap between implant and abutment. The majority of large companies now offer a conical connection, as this market is expected to overshadow butt-joint internal connections increasingly owing to the greater stability and perceived smaller-diameter micro-gap offered by conical internal connections. Many companies are combining these connection types with tapered shape and surface treatments as the current generation of premium products.

### Additional information

The information contained in this article was taken from two detailed and comprehensive reports published by iData Research ([www.idataresearch.net](http://www.idataresearch.net)), entitled "European Markets for Dental Implants, Final Abutments and Computer Guided Surgery" and "European Markets for Dental Bone Graft Substitutes, Dental Membranes and Tissue Engineering." For more information and a free synopsis of the above report, please contact iData Research at [dental@idataresearch.net](mailto:dental@idataresearch.net).

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