Editor’s Note: This is the second in a four-part article covering the past, present and future of dental implants and their impact on the practice of general dentistry. The second installment discusses the treatment of the totally edentulous jaw.

The highest benefit, lowest risk application for dental implants is the restoration of the totally edentulous lower jaw with 2-3 free-standing implants to retain an overdenture. The problem of denture stability gets progressively worse with time because of ridge resorption under the pressures of a denture. The Core-Vent Implant and attachment was the first system (1982) to address this problem in a surgically simple and cost effective way using two free-standing implants and a snap overdenture attachment. This solution is now considered minimum standard of care by the American College of Prosthodontists. While there are a variety of overdenture attachments available for dental implants, the Zest Locator Attachment has emerged as the most popular, primarily due to its low profile and ability to accommodate non-parallel implants. This attachment is sold by most major implant companies but the cost of the Locator Abutment, in combination with any of the implants from the major implant companies, pushes the hardware cost for the minimum number of implants (2) to about $1000. The recommended number for denture stability is 3 implant/attachments with the middle one providing indirect retention to prevent the denture from flipping up in the back when the patient bites in the front. The use of 4 implants with overdenture attachments provides even better denture stability.

Implant Direct’s GoDirect Implant (Pat. Pend.) combines the body of a tapered screw implant with mini-threads and a Locator compatible abutment platform. Unlike traditional mini-implants of under 3.0mmD with ball attachments, the GoDirect starts at 3.0mmD and includes a 3.7mmD and 4.7mmD option, providing increased strength and surface area with a natural emergence profile to a wider platform. Its tapered body allows the 3.0mmD implant to be inserted into an bone socket prepared to as small as 2.3mmD in soft bone and 2.8mmD in dense bone to accommodate narrow ridges and facilitate flapless surgical techniques, especially in combination with image guided surgery. Implant Direct will soon launch the GoDirect Prosthetic System (“GPS”) with both a low profile cap attachment and one that combines roational and vertical stress-breaking features.
The ultimate goal of Implant Dentistry is to replace missing teeth in the most natural way. While overdenture attachments like the Locator, Ball and GPS can provide cost effective ways to stabilize a removable complete prosthesis, the original Branemark protocol called for splinting 4-6 implants in the anterior or region of the edentulous mandible or maxilla with a prosthesis that could only be removed by the dentist. Processing denture teeth to a metal superstructure retained by fixation screws is called a “fixed-detachable” or “hybrid” prosthesis. A trend has emerged for treating edentulous jaws with only 4 implants placed in the anterior with the distal implants angled towards the distal to reduce the extend of the cantilevers. This “All-on-4” concept of placing the minimum number of required implants can lead to a “None-on-3” result that will be far costly to deal with than just placing an extra implant or two at the time of surgery and eliminating the need to angle the distal implants to increase the A-P spread.

All-on-4 advocates claim that this type of treatment plan reduces cost and saves treatment time but with the introduction of the ScrewIndirect 1-Piece implant that provides the implant, abutment, comfort cap and transfer at a fraction of the cost of the implant alone from all the major implant companies, the economics argument for using the minimum number of implants is no longer valid. The ScrewIndirect, screw-receiving platform allows splinting of implants that have up to 40 degree divergence allowing distal angulations of up to 20 degrees if desired. Placement of 5 implants in the lower symphysis and 6 anterior to the maxillary sinuses can be relatively straight and still support adequate length of distal cantilevers. Four ScrewIndirect implants can also be placed, as shown below, splinted with a distal attachment for retention of an overdenture but providing the patient with a fixed-detachable prosthesis that eliminates the need for removable prosthesis is a more natural solution to restoring an edentulous jaw.

The ScrewIndirect 1-piece implant is available in being 1-Piece, offers a 3.0mmD implant with adequate strength. All four diameter options (3.0mm, 3.7mm, 4.7mm and 5.7mm) have the same 5mmD multi-unit platform. The 3.0mmD implant allows treatment of narrow ridges and simplifies accurate placement during flapless surgery. Providing Teeth-in-1Day to edentulous patients and immediate implant placement following extractions is becoming the treatment of choice. The patient’s existing denture is converted to a fixed-detachable prosthesis immediately following implant placement. This is accomplished by attaching titanium sleeves to the implants that project through holes cut in the denture and attached them to the denture with cold-cure acrylic followed by shortening the denture flanges.
1-Piece Mini-Implants for Teeth-in-1Day™,
Implant-Retained and Implant-Supported Overdentures

GoDirect™ (Pat. Pend.)
*Lector® Compatible Platform
All-in-One packaging includes Snap-on Transfer and Comfort Cap.
USA List Price = $150

ScrewIndirect®
All-in-One packaging includes Screw-receiving Abutment, Snap-on Transfer, Comfort Cap and 2mm Extender.
USA List Price = $150

Visit our website to watch step-by-step procedures for Teeth-in-1Day™ using ScrewIndirect Implants:

*Locator® is a registered trademark of Zest Anchor Company.