Could chewing gum prevent implant failure in the future?

German researchers aim to develop special chewing gum

By Dental Tribune International

About 6 to 15 percent of patients suffer from peri-implantitis, inflammation that destroys soft and hard tissue surrounding the implant after placement. Researchers from Germany have announced they are planning to develop a chewing gum that releases a bitter flavor in the presence of peri-implantitis-specific enzymes. With their invention, they hope to accelerate diagnosis of the disease.

It is known that the concentration of matrix metalloproteinase-8, an enzyme that is also responsible for periodontitis, increases significantly when inflammation around the dental implant arises. Prof. Lorenz Meinel from the Institute of Pharmacy and Food Chemistry at the University of Würzburg explained that this increase could be identified through a special chewing gum using a small peptide chain that is bound to a bitter-tasting compound.

Once enzyme concentrations in a patient’s saliva exceed a certain level owing to complications with the implant, the peptide chain will snap, releasing the bitter compound.

In the future, special chewing gum could be part of postoperative care, in addition to routine check-ups. Patients would have to contact their dentist upon recognizing the bitter taste.

In addition to the development of the chewing gum, the researchers are considering developing a coating that uses the peptide chain system and can be applied to the implant directly.

The project will be carried out in collaboration with Swiss dental implant manufacturer Thommen Medical and various other European companies and scientific institutions. The research has received funding of €1 million for two years from the European Union.

Dr. Peter M. Loomer has been appointed chairman of NYU’s Ashman Department of Periodontology and Implant Dentistry.

Photo/Provided by NYUCD, Leo Sorel

Dr. Loomer named perio chair at NYUCD

Peter M. Loomer, DDS, PhD, an internationally recognized authority in the fields of periodontology and implant dentistry, has been appointed chairman of the Ashman Department of Periodontology and Implant Dentistry at the NYU College of Dentistry. Loomer will continue to serve as director of global health for oral health sciences at the NYU Global Institute of Public Health.

“Dr. Loomer’s passion and dedication to global oral health has led him to promote oral health research, education and patient care initiatives at the national and international levels,” said Charles N. Bertolami, DDS, DMedSc, Herman Robert Fox Dean and professor of oral and maxillofacial surgery at NYU. “As chairman, he will be responsible for shaping the future of periodontal and implant education at both the pre- and postdoctoral levels. Please join me in congratulating Dr. Loomer and wishing him every success in his new position.”

Since June 2013, Loomer has served as director and clinical professor of periodontology as well as director of global health for oral health sciences at the NYU Global Institute of Public Health. Prior to joining NYUCD, he was professor of clinical affairs at the UCSF School of Dentistry, where he served with distinction as director of predoctoral periodontology, vice-chair of the division of periodontol-
Study finds that shorter waiting time between dental procedures is adequate

Two surgeries are frequently required for tooth replacement with dental implants, however, clinicians must allow for adequate healing time between the procedures. Most patients want to minimize the overall recovery time and thus desire the surgeries be done close together. A study in the Journal of Oral Implantology looks specifically at healing times between the two dental procedures involving tooth replacement.

With tooth loss, the jawbone can shrink, making it impossible to replace the missing teeth with dental implants without risk of nerve or sinus damage. An additional surgery may be required to assure that adequate jawbone height and width are available for implant placement.

The study looks at 14 patients who underwent two procedures involving tooth replacement. In the first procedure, patients received a bone substitute, composed from nanocrystalline hydroxyapatite, which was grafted into the patient’s jaw. This synthetic material provided scaffolding for new bone growth, expanding into patients’ upper jawbone. Half of the patients then waited three months while the other half waited six months before undergoing the second procedure, placement of the dental implant(s).

The study found similar results among patients three years after the dental implants, whether patients waited three or six months between procedures. The 14 patients collectively received 24 implants in the upper jaw, and only one patient lost an implant. No implants were loose and only a few showed signs of plaque or changes to soft tissue.

The authors conclude that synthetic bone seems to need only three months to become secure enough for dental implants to be placed successfully in the jaw. The additional three months between surgical procedures had no significant long-term effect among the studied patients.


About Journal of Oral Implantology

The Journal of Oral Implantology is the official publication of the American Academy of Implant Dentistry. It is dedicated to providing valuable information to general dentists, oral surgeons, prosthodontists, periodontists, scientists, clinicians, laboratory owners and technicians, manufacturers and educators. The JOI distinguishes itself as implant dentistry’s leading forum exclusively to implant dentistry. For more information about the journal or society, visit www.joionline.org.
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Reality Check Savings

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*Note: Prices are indicative and subject to change.*
CAD/CAM customized abutments with Straumann original implant connections now available to 3Shape Dental System users

3Shape, a global leader in 3-D scanners and CAD/CAM software solutions, and Straumann, a global leader in implant, restorative and regenerative dentistry, recently announced the official release of new software capabilities that enable users of 3Shape’s Dental System® to design and order customized zirconia or titanium abutments with Straumann original implant connections.

The two companies have worked together to integrate Straumann® CARES® libraries in 3Shape’s Dental System software, enabling dental technicians to use the 3Shape Dental System to design abutments and a range of customized prosthetics — including cobalt chromium alloy (corin®), zirconium dioxide (zerion®) and various full-contour materials. These can be ordered with an original Straumann connection from Straumann’s global production facilities.

“Straumann is a leading implant manufacturer, and many labs are steadfast users of both the 3Shape CAD/CAM Dental System and Straumann abutments,” said Fleming Thorup, president and CEO at 3Shape. “3Shape Dental System users can now design highly esthetic and functionally customized abutments and send them directly for manufacturing at Straumann — thereby introducing a wider range of choices for dentists and their patients.”

Steve Sheehan, vice president of Straumann’s Lab Division, North America, commented: “A growing number of surgeons are putting a high value on the importance of placing original components on their implant of choice. They are realizing that the consequences of placing third-party abutments are a high price to pay in terms of voiding the manufacturers’ warranty, lost chair time and lost revenue for both the laboratory and the restorative dentist. To help our surgeons ensure that they can access original components, we are pleased to now provide access to Straumann’s portfolio of best-in-class abutments and prosthetics to owners of the 3Shape Dental System.”

The original Straumann libraries are currently available. Existing 3Shape users who wish to benefit from this opportunity can contact Straumann for information on obtaining the libraries. Availability depends on the specific 3Shape system configuration. Further information about this opportunity, as well as 3Shape scanners, 3Shape software and libraries, is available from 3Shape distributors.

About Straumann

Straumann — a global leader in implant dentistry offering surgical, restorative, regenerative and digital solutions for the dental and lab business — is a pioneer of innovative technologies. The company says it’s committed to “Simply Doing More℠” for dental professionals and patients. With world-class customer service, skilled technical support and a team of professionals available to you, the company’s vision is to be the commercial partner of choice in implant, restorative and regenerative dentistry. To learn more, visit www.straumann.us or www.straumann.us/connectivity.

About 3Shape

3Shape is a Danish company specializing in the development and marketing of 3-D scanners and CAD/CAM software solutions designed for the creation, processing, analysis and management of high-quality 3-D data for application in complex manufacturing processes. 3Shape envisions the age of “full digital dentistry,” and its 400 employees, including more than 175 developers, provide innovation power toward reaching this goal. 3Shape’s solutions empower dental professionals through automation of real workflows, and its systems are used in thousands of labs in more than 100 countries, putting 3Shape at the peak of the market in relation to units produced per day by dental technicians, according to the company. 3Shape is headquartered in Copenhagen, with business development and support offices at several locations in Europe, North America, Latin America and Asia. To learn more about 3Shape, visit www.3shapedental.com, www.facebook.com/3shape or view the mobile site on m.3shapedental.com.
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BIOMET 3i announces new strategic portfolio products and unveils its solutions strategy

By BIOMET 3i Staff

BIOMET 3i is pleased to announce that it has secured rights to distribute new strategic portfolio products in order to deliver new multiple technology system solutions designed to help clinicians achieve optimal patient care.

BIOMET 3i has signed an agreement to distribute the ZEST LOCATOR® Over-Denture Implant (LODI) System, which provides a less-invasive alternative for patients who have limited bone volume but still desire dental implant-retained partial or full arch prostheses.

The company has also secured an agreement with Dr. Stephen Chu, Dr. Mark Hochman and Adam Mieleszko to market and distribute a patented and innovative product designed for esthetics that is in the main stream of its development.

Finally, BIOMET 3i has agreed to distribute NeoBiotech’s Implant Removal Kit, which is designed specifically for dental implant placers who encounter peri-implant complication cases requiring removal of an implant from an infected site. The removal kit will allow users to atraumatically remove implants from multiple implant systems so that the clinician can consider retreatment with an implant designed to mitigate peri-implantitis (for example, the 3i T3® Implant).

BIOMET 3i President Bart Doedens explained that these new portfolio products, together with a series of planned new technology introductions, will allow the company to focus on commercializing the following strategic system solutions: sustainable esthetics, full-arch rehabilitation and peri-implant health management.

“We are taking the right steps to align ourselves with the treatment solutions our customers need and want for their patients,” Doedens said. “It is no longer just about the ‘products’ you sell. Our doctors want solutions so that they can better treat their patients who continue to expect faster, longer lasting and esthetically optimal treatment. We are focused on the entire solution and not just the bits and pieces. There’s more to implant dentistry than that.”

About BIOMET 3i

BIOMET 3i is a leading manufacturer of dental implants, abutments and related products. Since its inception in 1987, BIOMET 3i has been on the forefront in developing, manufacturing and distributing oral reconstructive products, including dental implant components and bone- and tissue-regenerative materials. The company also provides educational programs and seminars for dental professionals around the world. BIOMET 3i is based in Palm Beach Gardens, Fla., with operations throughout North America, Latin America, Europe and Asia-Pacific. For more information about BIOMET 3i, visit www.biomet3i.com or contact the company at (800) 342-3454; outside the United States, dial (561) 776-6700.
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