

Long-term study

Implant dentistry without peri-implantitis

Interview with Marco Waldner, CEO Patent™ Dental Implant System

No peri-implantitis and only 2.8 per cent of peri-mucositis after nine years—in a recent independent long-term study, the two-piece Patent™ Dental Implant System has challenged established definitions of implant success.¹ In this interview, Patent™ CEO Marco Waldner discusses the study results and explains how such an outcome is possible.

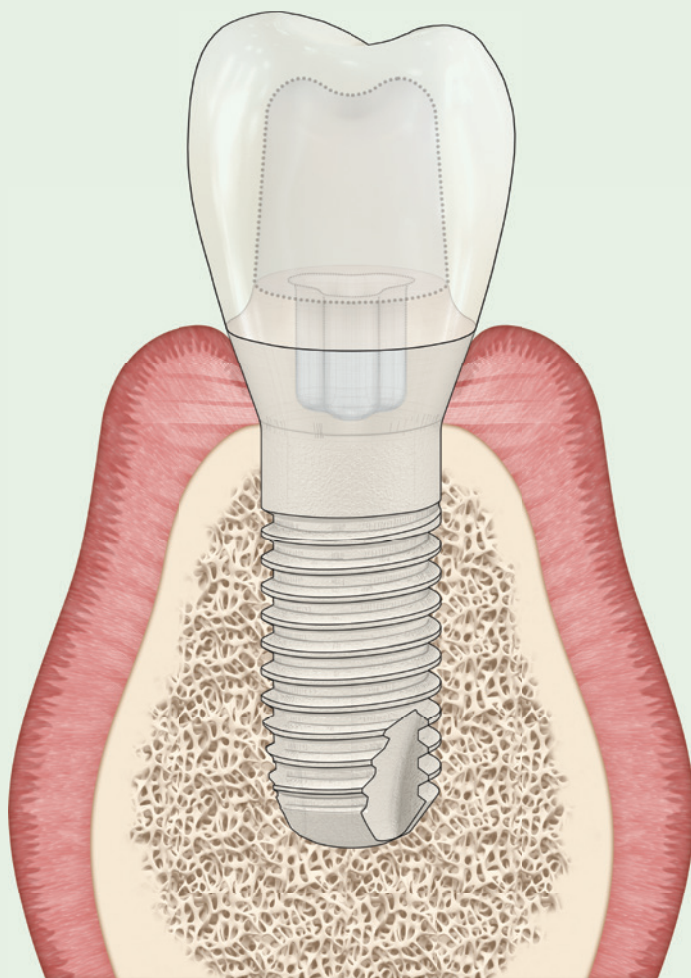


Fig. 1: The two-piece Patent™ Dental Implant System is able to minimise the risk of chronic tissue inflammation by incorporating a combination of three key elements: it promotes strong soft-tissue adhesion to counteract bacterial invasion, it does not have a microgap at the critical crestal bone level, and it features a prosthetic concept which is long-term stable and entirely sealed.

No peri-implantitis around two-piece Patent™ Implants after nine years of function—how is such an outcome possible?

Patent™ achieves this remarkable result through a combination of three key elements: First, it promotes strong soft-tissue adhesion, which creates a biological interface that counteracts bacterial invasion. Secondly, it does not have a microgap at bone level, which would act as a breeding harbour for bacteria. Thirdly, it relies on a prosthetic concept which is long-term stable and entirely sealed. This combination produced the results seen in the nine-year study at the University of Düsseldorf.

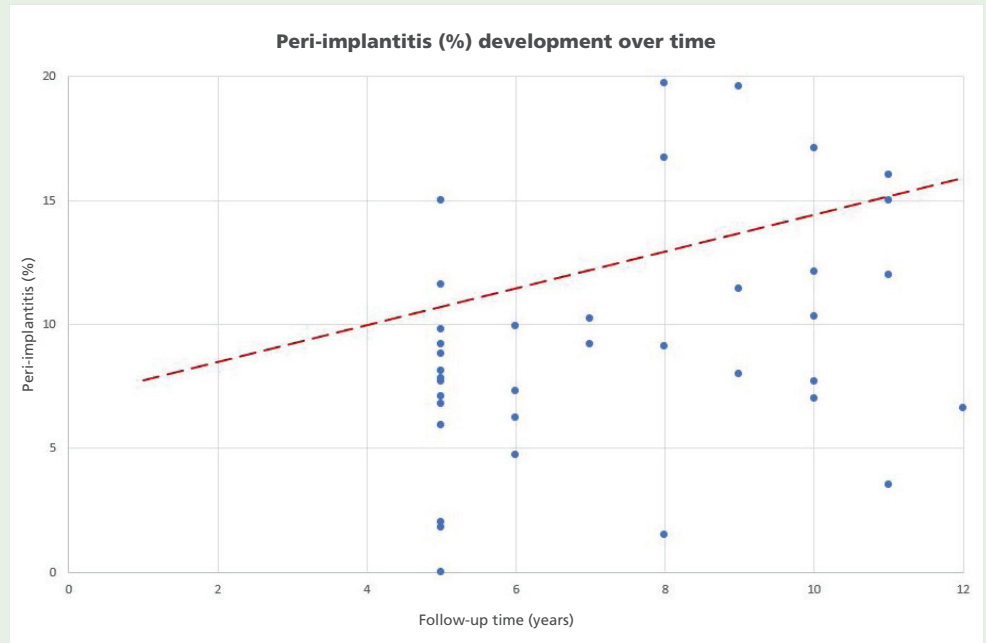
Regarding the strong soft-tissue adhesion you mentioned, could you explain how this is achieved?

The Patent™ Dental Implant's transgingival part is mucophilic thanks to its specialised surface topography and establishes intimate and strong contact with the soft tissue. The resulting soft-tissue seal acts as an ideal defense barrier against pathogenic bacteria.

How does the Patent™ System work?

The system integrates a combination of various elements crucial to sustained tissue health and performance: a unique transmucosal part, which facilitates strong

Fig. 2: An analysis of 53 studies suggests that peri-implantitis increases with the time the respective implants have been in function.²⁻⁵⁴ Blue = documented peri-implantitis (%) in the evaluated studies; red = trend line of the collected data.



soft-tissue adhesion, the absence of a microgap at the critical crestal bone level, and an endosseous implant body designed for atraumatic insertion, which facilitates uninterrupted healing cascades. The Patent™ Concept also involves an innovative prosthetic approach: serving as the abutment, the Patent™ Glass Fiber Post attenuates the masticatory forces thanks to its dentine-like modulus of elasticity, and transfers them to the implant and bone in a favourable way. This solution perfectly complements the material properties of the entire system, ensuring long-term stability, sealing against bacteria, and offering complete reversibility.

In a peer-reviewed long-term study, Patent™ demonstrated the absence of peri-implantitis and very low peri-mucositis rates. Was this surprising?

Not at all. It validates what we observe clinically today with integrated Patent™ Implants and underscores the reason why this system was developed 20 years ago—a fact now substantiated by robust scientific evidence.

What is the mission of your company?

In an environment where peri-implantitis rates are continuously rising, as scientific review articles and discussions at nearly every dental congress worldwide suggest, we offer a tooth replacement solution that effectively opposes this alarming trend.

Do you believe that with your implant system, the prevalence of peri-implantitis can be reduced in the long term?

Absolutely. It's not just our opinion as an implant manufacturer. Another long-term study, which was recently published in *JOMI*, also found no peri-implantitis around two-piece Patent™ Dental—even after 12 years of function.⁵⁵ The message to practitioners is clear: Peri-implantitis can be avoided.

References



Patent™ CEO Marco Waldner on the results of the independent long-term study at the Heinrich Heine University Düsseldorf in Germany:¹ "With Patent™, we are pursuing a zero peri-implantitis strategy."

Contact address

Patent™ Dental Implant System

Krähbühlstrasse 58

8044 Zurich

Switzerland

+41 44 5528454

info@zircon-medical.com

www.mypatent.com