

# “Short implants often provide a completely different strategy for implant placement”

Christoph Hämmerle<sup>1</sup>

An interview on short implants with Prof. Ch. Hämmerle (Switzerland), held 2013 at the 22nd Annual Scientific Meeting of the European Association of Osseointegration in Dublin.

**Professor Hämmerle, looking at the recent publications in implant dentistry we see an increased interest in short implants. What can be considered a short implant and what do you think is driving the professional interest in these implants?**

There are different definitions for short implants. The EAO consensus conference defined them as 8mm and less.

“The key interest is that with short implants you can provide less invasive treatments. Furthermore, short implants can lead to fewer complications and less morbidity.”

They decrease the costs, can deliver more predictable outcomes and are also easier to perform in many cases. With short implants sometimes you need less complex diagnostics

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and you run fewer risks. All these factors make short implants an attractive option, often providing a completely different strategy for implant placement.

**You mentioned many cases where short implants make a difference. What do you see as indications that can be treated with a short implant?**

Short implants would primarily be used in the posterior segment of the jaw, as in the anterior segment there is generally a sufficient bone height for a regular implant. In addition, in atrophic mandible and maxillary, where the vertical space is limited, short implants are also very valuable.

**The latest improvements in implant materials and surfaces promise higher osseointegration and mechanical stability of the implants. Do you believe these properties can compensate for the smaller implant dimensions?**

Yes, absolutely, this has clearly been demonstrated – medium-rough surfaces provide a better anchorage in the surrounding bone compared to smoother type of surfaces. This property is the key that makes shorter implants possible. Previous studies have shown that short implants with 10mm or less had a lower rate of osseointegration and lower clinical success, but we don't see the same in implants with

medium-rough surfaces.

I think advances in implant surface technologies offer the kind of anchorage that implants with more traditional surfaces could not achieve in the past. Hence, short implants can deliver a good anchorage nowadays in situations with limited bone height.

As implant technology progresses, I expect to see more innovative solutions which provide less invasive, less costly and more straightforward type of treatments. I believe such progress is in the interest of the dentist, the patient and the industry.

**What kind of indications do you see as a challenge for this implant? Could a short implant be a good alternative to avoid vertical augmentation?**

Most publications describe the use of the short implants primarily in the posterior region. Short implants are valuable in the maxilla to avoid sinus lift augmentation, while in the mandible they help to avoid vertical ridge augmentation.

A challenging indication could be a patient requiring a short implant because of a reduced bone height, but still needing an additional augmentation procedure due to the insufficient bone width. Alternatively, in the sinus area, in cases of soft bone, it would be difficult to get a good anchorage with a short implant. The healing time needs to be increased and implant loading delayed to ensure an undisturbed osseointegration process.

**Do you have any additional comment about short implants?**

As implant technology progresses, I expect to see more innovative solutions which provide less invasive, less costly and more straightforward type of treatments. I believe such progress is in the interest of the dentist, the patient and the industry.



**Did you know...**

...that Straumann has launched a new line of short Implants? With only 4 millimeters of endosteal length, they are the shortest tissue level implants on the dental market and they have been specifically developed to treat patients with vertical anatomical restrictions. Furthermore, Straumann. Standard Plus short implants are backed by 5 years of clinical evidence in the posterior severely resorbed mandible\*, featuring the proven Standard Plus design, the new Loxim™ snap-shot transfer piece, and compatibility with the entire SynOcta. portfolio<sup>1</sup>. The implants can be placed in accordance with the standard surgical procedure of the Straumann. Dental Implant System, by using the newest instruments that have been adjusted with a 4mm laser mark.

*\* Only straight abutments recommended.*

**References**

1. Slotte Christer et al, Four-mm implants supporting fixed partial dentures in the posterior mandible. 5-year results from a multicenter study . Presented at the 20th Annual Scientific Meeting of the European Association of Osseointegration ,10-13 October 2012, Copenhagen, Denmark

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