

“Risk assessment helps avoid peri-implantitis!”



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Thorough diagnosis, patient selection and treatment planning can help decrease peri-implantitis risk. But patient compliance is key.

Ten years after implant placement, seven percent of implants are lost and about fifteen percent of patients suffer from peri-implantitis¹. Can this be attributed to poor implant placement planning?

Prof. Renvert: To attribute all those cases to a failure in treatment planning or placement of implants would be too easy, but I think it is really important to put a greater focus on risk assessment before placing an implant.

Several factors can make an individual susceptible to peri-implantitis. Which correlations have a good evidence-basis?

Prof. Renvert: History of periodontitis and bad oral hygiene are definitely related. There are also reasons to believe that smoking has a negative impact, and systemic conditions such as diabetes or cardiovascular disease may play a role. So, when someone suffers from those conditions, it might be necessary to compensate for an increased risk when placing an implant by reducing other risk factors.

A person with poor oral hygiene is reported to be fourteen times more prone to develop peri-implantitis, and a person with a history of periodontitis and no maintenance therapy is eleven times more prone. What conclusions can practitioners draw from these numbers?

Prof. Renvert: If we place implants in patients with a history of periodontitis, it is crucial to discuss the higher risk for peri-implantitis with them openly and to make it clear that good oral hygiene is needed in order for them to keep their implants. “New teeth for a lifetime” is not realistic without the proper attention. Additionally, clinicians should reduce risk factors for those patients wherever possible. Consider where implants are placed, make it possible to clean the implant properly and urge patients to quit smoking. There are also good reasons to use screw-retained over cemented reconstructions in order to reduce the risk for “cementitis.”

How about the implant surface?

Prof. Renvert: This is a difficult question, because there are few animal and human studies. Osseointegration works better on implants with a micro-textured surface, but if such a surface is exposed, it is more prone to retain biofilm.

Is there a risk assessment tool that you would recommend?

Prof. Renvert: I recommend focusing on the main points we discussed: history of periodontitis, smoking, oral hygiene, conditions such as diabetes or cardiovascular disease and the patient’s compliance.

Besides susceptibility, there is also the implant placement itself. What can the dentist do to minimize peri-implantitis risk?

Prof. Renvert: The correct positioning of the implant is key. This includes optimal placement in the envelope, not angulated in the wrong direction and not too close to neighboring teeth or implants. It is also crucial to design the prosthesis so that it is possible for the patient to clean it properly. Sometimes we find restorations, even in the posterior lower jaw, that are more aesthetic than functional, although this area is rarely visible when smiling. One should also allow sufficient healing time and be very cautious with infections, for example: remove granulation tissue and refrain from immediate implant placement in infected areas.

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Risk factors for peri-implantitis

Data presented by Dr. Stephen Chen, Melbourne, April 2016, based on references 2-7

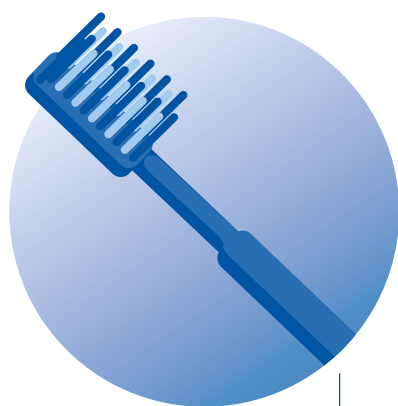
Residual periodontal pockets ≥ 5 mm plus bleeding on probing increase the risk **5-fold**.



Tobacco smoking increases the risk **4-fold**.



No scheduled hygiene maintenance increases the risk **6-fold**, and combined with a history of periodontitis increases the risk **11-fold**.



Poor patient oral hygiene increases the risk **14-fold**.



History of periodontitis increases the risk **4-fold**.

Do we have scientific data on the most common treatment mistake that increases the risk for peri-implantitis?

Prof. Renvert: I do not know of any such data. I guess the most common mistake is a prosthesis that is impossible to clean.

You are one of the world's top experts in peri-implantitis. What is your key message for your colleagues regarding prevention of peri-implantitis?

Prof. Renvert: It's kind you call me an expert, but let's put it like this: if I had a private practice I would make a very thorough risk assessment, explain the pros and cons very openly to my patients and urge their participation in the treatment success. The latter includes very good oral hygiene and

smoking cessation. In addition, I would design a regular maintenance program, e.g., on a quarterly basis in the first year after implant placement and then two appointments per year, one with a dental hygienist and one for measuring the probing pocket depth, the bleeding on probing, etc. This would let us inter-vene as early as possible, because peri-implant mucositis is much easier to treat than peri-implantitis.

Are there situations where you would refrain from placing implants?

Prof. Renvert: Placing implants in a person with a history of periodontitis and non-compliant with their oral hygiene would be asking for trouble. We have to be very open that this will lead to

complications. What all patients want is a healthy smile, and that's also what I want to give them. I don't want to give them peri-implantitis.

References

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