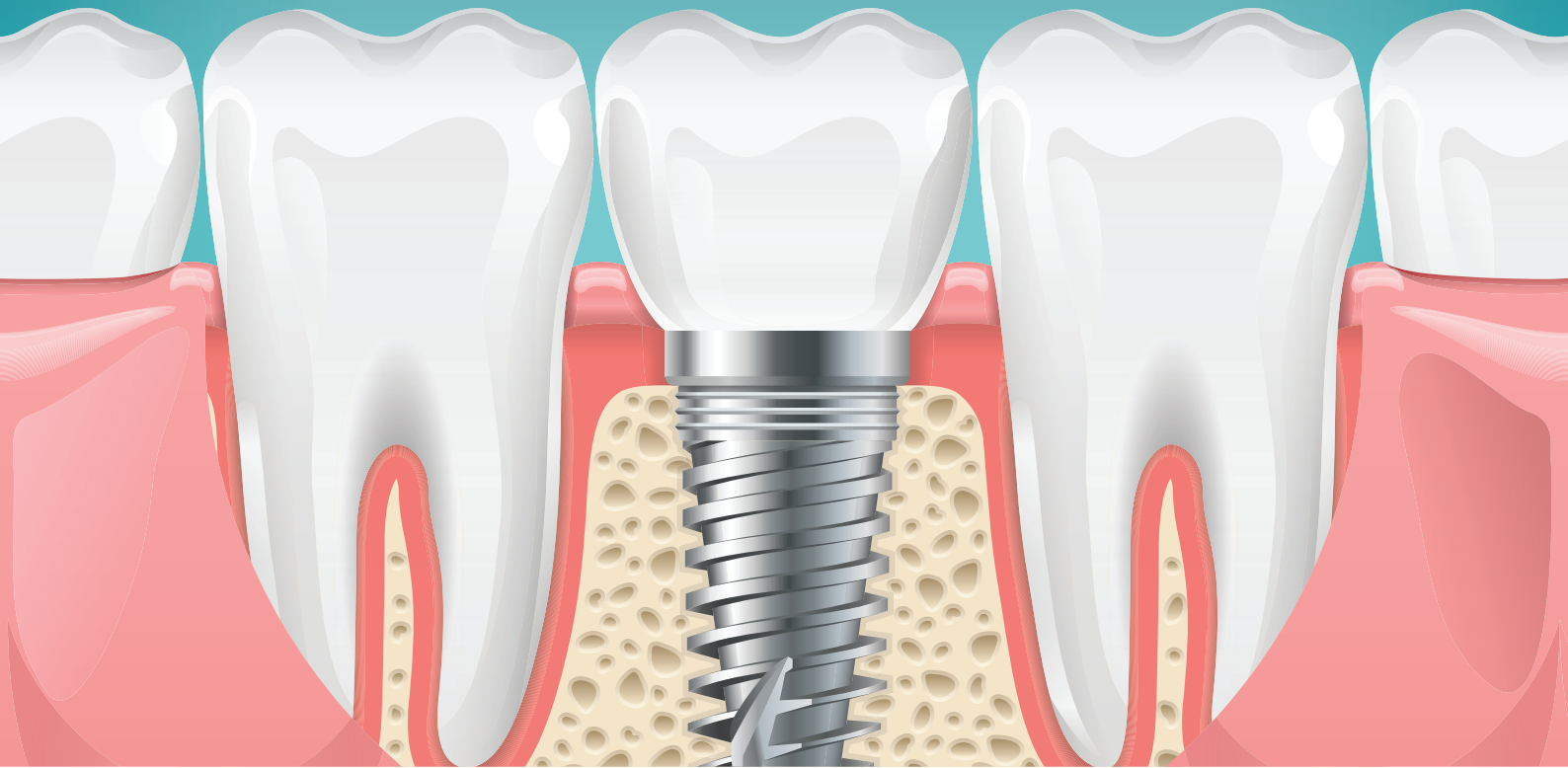


Implants - Success or Failure.



Implants: a step in the tooth life cycle, not the end

Media and consumer interest have heightened demand and expectations for implants as a solution to tooth loss. As a result there are an increasing number of implants being placed but, with less than satisfactory treatment planning and case assessment there are also increasing complaints about failures. When an implant fails it usually means that the super structure also fails, making any substantiated claims costly to the PI insurer and therefore to everyone via increased premiums. By not adequately assessing and planning cases, dentists are not acting to protect their own interests or those of the profession.

Emerging issues in implant complaints

There are two emerging issues (leaving aside the issue of implants placed overseas for another article.) Firstly, patient driven treatment, where the patient refuses a removable option yet is

biologically unsuitable for fixtures, can lead to placement of implants without adequate risk analysis and therefore a higher risk of failure. Secondly, a number of practitioners and most patients believe the treatment to be permanent and at low risk of failure. This is not the case according to dental literature.

Failure risks can be considered as *restorative and surgical/periodontal*. The prosthetic part of the treatment must be governed by first principles of occlusion and load. Because of the ease of machined components, it is more predictable and if the occlusion is right, there is less risk of mechanical failure than conventional crowns and bridges. When implants fail, they are less amenable to treatment than natural teeth. There is reference in the literature to “failing” and “ailing” implants and it is recognised that there will always be implants which fail in the short term. But, with time, it is expected [and demonstrated in the literature] there will be more biological and technical issues resulting in **increasing** loss of implants.

Risk of failure

It appears that an increasing number of implants are being placed with no heed to the biological risks of failure. There is already (as well as emerging) published literature on this point but many dentists continue to place implants in cases which, given evidence based research, are at high risk of failure. As dentists, we are used to considering a risk hierarchy of factors for periodontal disease and caries. There are also risk factors to be considered when planning implants. There is well regarded literature which shows increasing loss or failure over time, and some cases of “spontaneous” failure with no known risk factors.

Emphasis in many planning cases is on the type of fixture and restoration and not on basic triage of suitability. In overlooking this foundation of treatment planning, the result is increasing failures, complaints and therefore costs to the profession and the insurer.

High risk factors for peri-implantitis are:

1. Present active periodontal disease
2. History of past periodontal disease
3. Poor oral hygiene
4. Smoking (evidence showing it is less ranking than with periodontitis but still significant)
5. A small amount of literature identifies osteoporosis and diabetes as risk factors but there is not enough evidence to rank them.

In summary

Every dentist should know the limitations and complications arising from implant placement and advise their patients of these. The dentist should conduct a **risk assessment** on the likelihood of failure and add this to the general discussion of implant treatment.

Expectations of patients should be aligned with this risk profile prior to embarking on treatment.

Although this is a now ageing article, I recommend the excellent review article by Drs Gary Greenstein and John Cavallaro: JADA 145(8) August 2014. In this article they cite the following recommendations to help reduce failures.

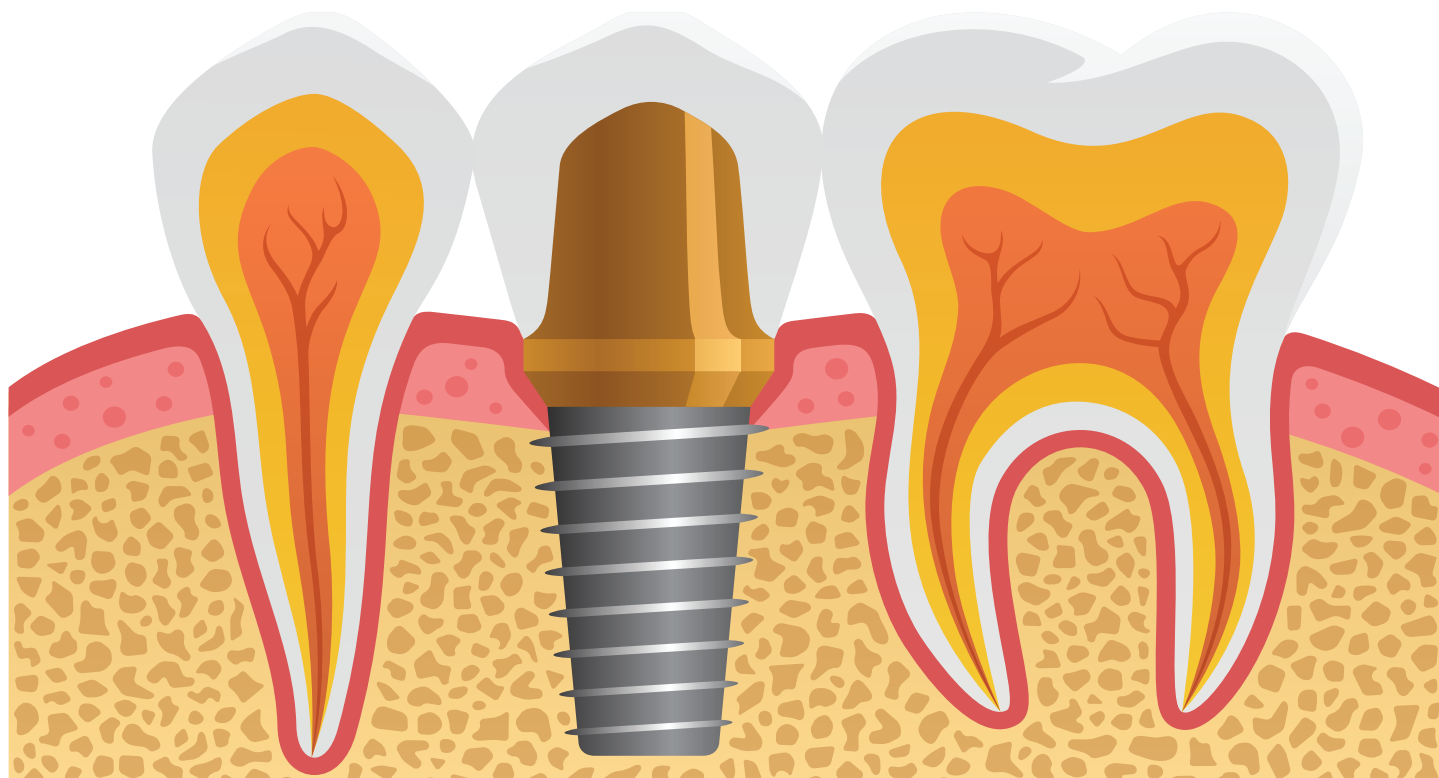
1. Treat any periodontal or peri-implant pathosis before implant placement
2. Fully assess medical history
3. Make sure there is adequate bone height and width: **if not, augment**
4. Follow strict surgical protocol
5. Construct a proper super structure
6. Instruct patients in good oral hygiene and the **absolute necessity** for maintenance

7. Over engineer cases where parafunction is obvious

Performing and recording a risk analysis and then informing patients of any heightened risk of failure is **good risk management** for you. To not do so is potentially negligent and can give rise to a basis for an expensive claim, usually involving a costly remedial treatment plan. Disregard for considering evidence-based research would also result in a potential unprofessional conduct finding if the matter was taken to Ahpra, as would practicing beyond the scope of an individual's formal training.

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References

Failed dental implants: Diagnosis, removal and survival of reimplantations: Drs Gary Greenstein and John Cavallaro: JADA 145(8) August 2014; 835-841

Dental implant complications: etiology, prevention, and treatment: SJ Froum – 2015

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