

Implant Surface Decontamination

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Why managing peri-implantitis is so important and why surface decontamination is a key step

- Peri-implantitis is an inflammatory condition characterized by crestal bone loss around the dental implant.
- Given that the number of implants being placed is growing in an exponential manner, the incidence of peri-implantitis is increasing and is a concern for anyone in implant dentistry.
- If you look at the epidemiology, it is accepted from the literature that one in every ten implants, at some point, will be affected by peri-implantitis. That translates to one in every five patients.
- There is still debate around optimal protocols for treatment.
- In my opinion, surface decontamination is the most important step in treating peri-implantitis.

Implant Surface Decontamination Protocol

- Decontaminate surface with a rotating **titanium brush**.
- 3% Hydrogen Peroxide continuous application to the surface for one minute.
- Careful drying of implant surface with non-sticking gauze to remove contaminants from the site.
- Application of tetracycline slurry or minocycline microspheres to implant surface.

Titanium Brush

- A game changer in terms of implant surface decontamination.
- Used at 900 RPM
- Titanium bristles
- Affects the implant surface but does not affect the surface roughness of the implant, which is important for reintegration and bone growth.
- Greater efficacy in plaque removal than with either ultrasonic or steel curettes.
- Results show decreased bleeding on probing, decreased probing depths around the implant, and increased bone fill.

- Use of titanium brush has led to an increase in predictability of post-operative outcomes.

Post procedure prognosis

- In the short term, we can expect to see improvement and stabilization.
- As far as bone fill is concerned, I would never say that we're going to get complete regeneration. If I'm able to get 40-50% of the bone back, I would be very happy.
- Patient needs to come back and be compliant about hygiene and maintenance.