
Is the Dentist of the Future an Oral Precision Engineer?

Dear Reader,

Is the dentist of the future an oral precision engineer? Doing implant-supported reconstructions may lead to this assumption, since to master this technique, knowledge of engineering is definitely required. Does this mean that dentistry is still a trade and dentists artisans?

Certainly not! To stay with the implant example: Yes, to prepare for implants and insert them requires highly trained and skilled operators. However, they must know and master more. To be able to transplant connective tissue and bone, deal with osteodistraction and blood platelet-rich plasma or even bone growth stimulating factors, the operator must have a thorough understanding of the basic biological factors governing transplant blood supply, the mechanisms of genetic tissue determination and induction, etc, to do the right thing in the right place. With all this knowledge, things which were considered miracles 20 years ago have become routine in today's periodontal-implantological practice.

The restorative dentist of the future will be faced with the same expansion in the spectrum and depth of knowledge. Reading the review article by

F. Tay and D. Pashley (page 91), one must realize that adhesion – today being basically a micromechanical phenomenon (eg, very sophisticated engineering) – will tomorrow move into the realm of molecular biology. By knowing the basic structures of unfoldable amino acid strains or the molecular mechanisms of natural „glues,“ such as those produced by barnacles, new roads will be opened for permanent bonds between dental restorative materials and dental hard tissues. If we dentists do not want to fall back into a „black box mentality“, we are well advised to accept the challenge and invest more into biological knowledge and understanding.

This is why *The Journal of Adhesive Dentistry* publishes both types of articles: basic research to tell you why we are doing things and clinical articles to show you how to do them. Only with the right mixture of theory and application will dentists be able to maintain the highly esteemed professional status we have earned over the last 50 years.



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