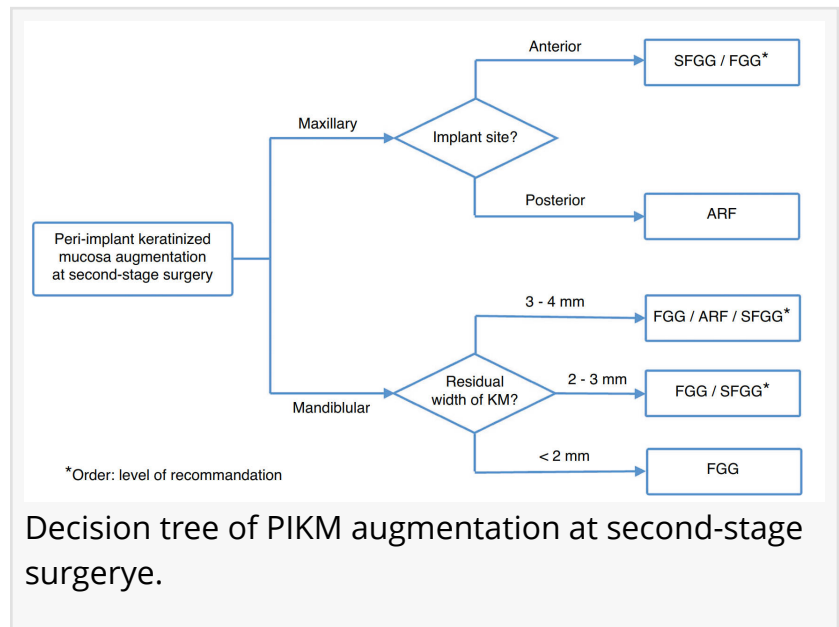


Transforming implant success: how gum tissue expert consensus may change dentistry

GA, UNITED STATES, August 1, 2025 /EINPresswire.com/ -- Long-term success of dental implants depends not just on bone integration but also on the health of surrounding gum tissue. Yet, gum augmentation practices often vary, leading to inconsistent outcomes. A new expert consensus offers standardized surgical guidelines for enhancing keratinized mucosa (KM) during second-stage implant surgery—a key moment when soft tissue can be managed before prosthetics are placed. The study evaluates commonly used procedures, including flap repositioning, grafting, and synthetic materials, to help clinicians choose the right approach for each patient. This consensus marks a turning point in soft tissue management, aiming to reduce complications, improve aesthetics, and ensure lasting implant stability.



Decision tree of PIKM augmentation at second-stage surgery.

Dental implants have revolutionized oral rehabilitation, but their longevity depends on more than just a strong anchor in bone. The soft tissue that surrounds the implant—specifically the band of keratinized mucosa (KM) —acts as a barrier against bacteria and mechanical stress. When this tissue is too narrow, patients face higher risks of inflammation, discomfort, and tissue breakdown. Despite the development of several surgical methods for KM augmentation, clinicians face confusion due to differing techniques and unclear protocols. These inconsistencies, combined with growing patient expectations, highlight a clear need: to define evidence-based, practical strategies for regenerating this critical tissue zone.

In June 2025, a multidisciplinary team of oral health experts across China released a consensus report (DOI: [10.1038/s41368-025-00379-3](https://doi.org/10.1038/s41368-025-00379-3)) in the International Journal of Oral Science on optimizing peri-implant keratinized mucosa ([PIKM](#)) augmentation. Led by Sichuan University, the report synthesizes clinical data and surgical experience to offer standardized recommendations for soft tissue management during second-stage implant procedures. By clarifying when and how to use methods such as apically repositioned flaps (ARF), free gingival grafts (FGG), and soft

tissue substitutes, the consensus provides clinicians with a decision-making roadmap to improve long-term implant outcomes.

The expert group assessed four mainstream surgical techniques—ARF, FGG, SFGG, and soft tissue substitutes—detailing their indications, benefits, and drawbacks. FGG remains the gold standard, reliably increasing KM width and thickness, but at the cost of significant donor site trauma and esthetic mismatches. ARF offers a less invasive alternative with good color integration but depends heavily on existing tissue. SFGG, involving thin strips of grafted tissue, reduces donor morbidity and improves aesthetics when combined with collagen matrices, though it is more technique-sensitive.

The consensus also introduces a decision tree to guide surgeons based on implant location, residual KM width, and patient preferences. For example, FGG is advised in cases with <2 mm of KM, especially in the lower jaw. ARF is suited for the upper back teeth, while aesthetic concerns in the front teeth call for SFGG with tissue substitutes. Factors such as gingival thickness, surgical experience, and cost are also considered. The result is a practical clinical tool for tailoring surgeries to individual needs, helping ensure both biological health and cosmetic satisfaction.

“Soft tissue is the unsung hero of implant dentistry,” says Prof. Quan Yuan and Dr. Shiwen Zhang, lead authors of the consensus. “For years, we focused mainly on bone integration, but healthy gum tissue is equally essential for long-term implant success. This report offers a unified guide based on evidence and clinical wisdom, helping clinicians make informed, patient-centered decisions. With clearer strategies, we can now deliver not just function but also comfort and beauty.”

This consensus fills a critical gap in implant dentistry, offering clinicians a clear and adaptable framework for soft tissue regeneration. It promotes consistency in treatment planning, streamlines surgical decision-making, and aligns procedures with both patient expectations and anatomical realities. Beyond immediate clinical impact, the report sets the stage for future innovation. Researchers are encouraged to develop biomaterials that balance predictability with aesthetics, and to pursue long-term trials to validate outcomes. Digital imaging, tissue engineering, and individualized care models will likely play central roles in the next wave of implant success stories—stories that begin with the right soft tissue foundation.

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