The Foundation of Knowledge

3rd Consensus Document on Immediate Loading of Jaw Implants (2019)

Executive Summary

This consensus paper reviews the principles, history, indications, contraindications, and clinical considerations related to immediate functional loading of jaw implants. Immediate loading, defined as prosthetic restoration within days of implant placement, is now an accepted and evidence-based modality for many implant systems, particularly for Corticobasal® implants and the technology of the Strategic Implant®.

Key Consensus Statements:

- Immediate functional loading is safe and effective when biomechanical principles are respected.
- Corticobasal® and basal implants are specifically designed for immediate loading, with high predictability.
- Delayed loading with bone augmentation and two-part implants often carries greater risks, higher costs, and longer treatment times.
- Contraindications to immediate loading are limited and should be carefully defined.
- The prosthetic work must be done only by an especially trained prosthetic implantologist, as the correct adjustment of the masticatory function is crucial for the success of the treatment and for avoiding failure. Certificates for such experts carry an expiry date, because these specialists are expected to undergo regular re-training.
- Patient education and shared decision-making are essential, as patients generally prefer immediate restoration.

1. Terminology

Consensus statement: Immediate loading refers to prosthetic use of implants within the first days after placement. This is distinct from the inevitable physiologic loading that occurs at the time of insertion.

2. Historical Perspective

Consensus statement: Immediate loading is not new. Since the 1950s dental implant have been used exclusively in immediate functional loading protocols.

In osteosynthesis and trauma surgery surgeons have practiced immediate functional loading since 1975 on simultaneous fixation and loading principles. Depending on the result of the surgical intervention loading was dosaged for some time in order to avoid failure of the bone.

In implant dentistry, a phase had passed (1990s – 2015 approx.) where "osseointegration" was the preferred method of treatment. Later the acceptance of immediate loading has increased again with the development of implant designs optimized for cortical engagement.

3. Current Concepts

Consensus statement: Immediate loading is evidence-based and supported by implant systems specifically designed for this approach.

- Single-piece Corticobasal® implants and compression screw designs are particularly suited for immediate loading.
- Surface modifications (e.g., sandblasting, etching) are not prerequisites for immediate loading and may increase the risk of periimplantitis.
- Immediate loading avoids the disadvantages of two-part implants and bone augmentation procedures.

4. Clinical Planning

Consensus statement: Every treatment plan should include consideration of immediate loading as a viable option. Adequate treatment plans carried out in immediate functional loading and cortical engagement are safer than treatment plans which follow the rules of "osseointegration".

- Patient preference strongly favors immediate restoration.
- The decision depends on implant type, bone conditions, and treatment goals, not on arbitrary timelines.
- Comprehensive rehabilitations are often best served by immediate loading with Corticobasal® implants.
- Preservation of compromised natural teeth is not always in the patient's best interest if it prevents immediate restoration.

Clinical recommendation: Where possible, implant designs that allow immediate cortical anchorage should be chosen over augmentation-dependent systems.

5. Contraindications

Consensus statement: Contraindications to immediate loading are limited and exceptional.

Examples include:

- Extremely poor general health precluding surgery.
- Highly unstable occlusion or parafunctional habits not controllable by prosthetics.
- Situations where stable prosthetic splinting cannot be achieved.

6. Prosthetic Considerations

Consensus statement: Prosthetic planning must support functional stability and long-term success.

- Splinting of implants within a rigid prosthetic framework is recommended.
- Immediate restoration typically requires full-arch or segmental prosthetics for stability.
- For single-tooth cases, risk of overload is higher, and case selection is critical.

7. Advantages of Immediate Loading

Consensus statement: Immediate loading offers significant clinical and patient-centered benefits.

- Shorter treatment times.
- Lower overall costs compared to augmentation-based approaches.
- Avoidance of bone graft morbidity.
- Increasing the amount of Corticobasal® implants reduce the risk of failure. Such an increase is possible, as there must be no fear of periimplantitis in these implants.
- Improved patient satisfaction and quality of life.

8. Patient Communication and Legal Aspects

Consensus statement: Informed patient consent is essential. Patients should be presented with the option of immediate loading whenever applicable.

- Patients must be informed if the chosen implant system does not support immediate loading.
- Insurers should not refuse coverage for systems explicitly approved for immediate loading.

9. Summary of Consensus

- Immediate loading is a validated treatment option for many implant systems.
- Corticobasal® implants are particularly suited to this modality.
- Contraindications are rare and should not be overstated.
- Patient preference generally favors immediate loading, and clinicians should respect this when planning care.

Overall consensus: Immediate functional loading of jaw implants is a predictable, efficient, and patient-centered treatment modality when surgical, biomechanical and prosthetic principles are observed.

Approved by the expert consensus group, 2019.