More than integrated workflows.
Immediate digital tooth replacement.
More than Guided Surgery.  
A fully integrated workflow.

Straumann’s integrated workflow offers innovative benefits for implant planning and prosthetic rehabilitation – via an interdisciplinary team approach providing patients with an immediate tooth replacement solution.

Implant therapy has become an integral part of clinical dentistry, with ever increasing numbers of patients seeking treatment. Today’s patients want functional and esthetic results, with few appointments. **What is your plan to provide patients a fast time-to-teeth with beautiful esthetics?**

Seamless collaboration within the treatment network is crucial for providing quality treatment and the best functional restoration for your patients. **How do you collaborate and exchange planning information to maximize treatment outcomes?**

Access to more treatment options with clear communication to your patients is essential for case acceptance. **How do you best educate your patients about your treatment options?**

- **Immediate Customized Restorations via Prosthetically Driven Implant Planning** (P 2)
- **Maximize Treatment Outcomes through Fully Digital Collaborative Planning** (P 6)
- **Practice Differentiation Using Implant Planning Software** (P 8)
- **Efficiency during Surgical Procedures with Straumann® Guided Surgery Instruments** (P 10)
More than implant planning.
Immediate customized restorations.

Today’s, patient expects both short treatment times and esthetic results. Straumann’s integrated workflow allows clinicians and technicians to make the shift from surgically driven to **prosthetically driven implant planning**, enabling you to provide immediate customized restorations that meet your patients’ expectation.

**IMMEDIATE PROTOCOLS PROVIDE IMPROVED QUALITY OF LIFE TO YOUR PATIENTS**

- **FUNCTION** with immediate fixed restorations.
- **ESTHETICS** thanks to CADCAM-based, patient-specific restorations.
- **COMFORT** through reduction of postoperative discomfort caused by removable interim prostheses.

**IMMEDIATE PLACEMENT – IMMEDIATE LOAD**

Scientific literature uses various descriptive terms for the time points of implant placement after tooth extraction and loading protocols. Currently, the most commonly used definition is based on the 3rd ITI Consensus Conference (2003).¹,²,³

Implant placement timing after tooth extraction and loading protocols are defined in the latest ITI consensus statements and clinical recommendations as predictable protocols depending on variables, which should be approached with caution and by experienced clinicians only.³,⁴
### Classification for the Timing of Implant Placement after Tooth Extraction

<table>
<thead>
<tr>
<th>0 mo.</th>
<th>1 mo.</th>
<th>2 mos.</th>
<th>3 mos.</th>
<th>4 mos.</th>
<th>5 mos.</th>
<th>6 mos.</th>
<th>7 mos.</th>
<th>8 mos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediate placement, Concurrently with extraction</td>
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<tr>
<td>Early placement – with soft tissue healing, 4–8 weeks of healing</td>
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<tr>
<td>Early placement – with partial bone healing, 12–16 weeks of healing</td>
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<tr>
<td>Late placement – completely healed, typically, more than 6 months of healing</td>
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</table>

### Classification for Loading Protocols

<table>
<thead>
<tr>
<th>Immediate loading</th>
<th>Early loading</th>
<th>Conventional</th>
<th>Delayed loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 mo. 148 h</td>
<td>3 mos.</td>
<td>6 mos.</td>
<td></td>
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</table>
IMMEDIATE CUSTOMIZED ESTHETICS:
CODIAGNOSTIX® MEETS STRAUMANN® CARES® X-STREAM™

Integration of coDiagnostiX® with Straumann® CARES® Visual and the Straumann® CARES® X-Stream™ workflow* offers access to new restorative options in a fully digital and model-free workflow.

The Straumann® CARES® X-Stream™ restorative solution is delivered before the surgery and provides the ideal conditions for immediate customized esthetics.

*CARES® X-Stream™ workflow allows laboratories to design and order the abutment and restorative component in one project in CARES visual software.
Clinical Case Example

17 year old female in good overall health with a congenitally missing tooth #10. Orthodontist had taken serial cephs over 6 months and noted that skeletal growth was complete.

The design tools in the CARES software were used to create the ideal tooth using The Golden Ratio. This opened a diastema on the lateral of the implant, giving the team the confidence to place the implant and allow the orthodontist to finish treatment during healing.

The plan and the outcome

Digital Drill Guide Designed to the final surgical protocol and to accommodate ortho brackets

Printed digital drill guide with Surgical Sleeve Provisional is designed via the CARES X-Stream solution. (PMMA polycon ae luted to a Straumann Variobase Abutment)

Printed Surgical Guide with implant in place through the guide

Digital provisional placed at the time of surgery. Image taken at 3 weeks post-surgery

Final prosthesis delivered

Prosthetically driven implant plan in coDiagnostiX based on prosthetic proposal and the bony anatomy (inset)

Treatment Planning from coDiagnostiX™ Software is imported into CARES Visual and used to convert the prosthetic design to an immediate provisional

Printed Surgical Guide with implant in place through the guide

Digital provisional placed at the time of surgery. Image taken at 3 weeks post-surgery

The Plan and the Outcome

Images courtesy of Dr. Peter Domagala, Institute of Dental Implants & Periodontics, Gurnee, Illinois
Prosthetic images courtesy of Dr. Thomas Schweitzer, Cosmetic and Family Dentistry, Grayslake, Illinois
More than a digital workflow. Maximize treatment outcomes.

The critical link remains the relationship with the dental practice and dental lab. Straumann’s integrated workflow enhances the interdisciplinary team approach to maximize treatment outcomes.

WORKFLOW

1. Data Acquisition
2. 3D Surgical Planning
3. Guided Surgery & Provisionalization
4. Design of Final Prosthesis
5. Delivery of Final Prosthesis

REAL-TIME COLLABORATION WITH DWOS SYNERGY™

The workflow between coDiagnostiX® and Straumann® CARES® Visual is completely seamless with DWOS Synergy™. Transfer your coDiagnostiX® implant plan to CARES® Visual and receive the restorative plan from the lab technician. Both applications provide complete data visualization in order to achieve real-time surgical and restorative case planning.

Digital case sharing by CaseXchange™ – coDiagnostiX®, caseXchange™, an interactive case-sharing platform, ensures that expectations of all participants, including the patient, are met.

Straumann® CARES® Visual: Restorative planning software
coDiagnostiX®: surgical planning software
PREDICTABILITY THROUGH PRECISE DIAGNOSTICS, PLANNING AND SURGERY

Achieve predictable results – Detailed 3D diagnostics provide a complete 360° view of the patients anatomy, reducing uncertainties associated with conventional planning and 2D radiographs.

Digital Transfer of Surgical Protocol – Seamless communication between coDiagnostiX and iChiropro transfers the surgical protocol to the drilling unit creating an efficient workflow for your surgical team.
More than implant planning software. A practice differentiator.

Transparent and effective communication about available treatment options is crucial to increase patient acceptance. Enhance your patient’s trust and confidence in your treatment approach, and, in the process, differentiate your dental practice.

**INCREASE TREATMENT ACCEPTANCE**

**Patient communication** – Sophisticated visualization features helps to explain the advantages of the different options in a patient-friendly way.

**Predictable pricing options** – Pre-planning the restoration from root to tooth including custom prosthetics and other necessary procedures makes it possible to accurately present treatment costs to the patient.

**Immediate treatment protocols** – Whether in fresh extraction sockets or in immediate loading protocols, guided surgery helps to achieve predictable implant positioning.

**Flapless surgery** – 3D Treatment Planning provides precise visualization of the anatomy. Together with precise drilling templates, reliable, flapless surgery is at your disposal.
More than efficiency.

Straumann® Guided Surgery.

Straumann® Guided Surgery is used for a fully guided implant bed preparation in combination with a surgical template. The Straumann surgical protocol provided by the planning software increases efficiency and helps to save chair time during the surgical procedure.

**Straumann® Drill Handles** – The drill handles are of ergonomic design, color-coded and marked with a symbol. The drill handle cylinders fit into the Straumann® Sleeve to ensure precise drilling guidance.

**Straumann® Guided Drills** – The guided drills are designed with a collar for a physical depth control.
Guided transfer piece:
the guided transfer piece fits the surgical sleeve and ensures a fully guided implant insertion by providing physical depth control with the stop key.

Orientation for bone level implants:
thanks to the implant rotational markers on the surgical template, the marking on the bone level guided transfer piece allows you to visualize the implant connection position. This enables more treatment options (e.g. designing and producing CARES® restorations prior to the surgery).
Glossary

CLASSIFICATION AND DESCRIPTIVE TERMS FOR TIMING OF IMPLANT PLACEMENT AFTER TOOTH EXTRACTION

<table>
<thead>
<tr>
<th>Classification</th>
<th>Descriptive terminology</th>
<th>Desired clinical outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Immediate placement</td>
<td>Placement of an implant into a tooth socket, concurrently with extraction.</td>
</tr>
<tr>
<td>Type 2</td>
<td>Early placement – with soft tissue healing (typically 4 to 8 weeks of healing)</td>
<td>A post-extraction site with healed soft tissues but without significant bone healing.</td>
</tr>
<tr>
<td>Type 3</td>
<td>Early placement – with partial bone healing (typically 12 to 16 weeks of healing)</td>
<td>A post-extraction site with healed soft tissues and with significant bone healing.</td>
</tr>
<tr>
<td>Type 4</td>
<td>Late placement (more than 6 months of healing)</td>
<td>A fully healed socket.</td>
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CLASSIFICATION AND DESCRIPTIVE TERMS FOR LOADING PROTOCOLS

Immediate loading
A restoration placed in occlusion with the opposing dentition within 48 hours of implant placement.

Early loading
A restoration in contact with the opposing dentition and placed at least 48 hours after implant placement but not later than 3 months afterward.

Conventional loading
The prosthesis is attached in a second procedure after a healing period of 3 to 6 months.

Delayed loading
The prosthesis is attached in a second procedure that takes place sometime later than the conventional healing period, greater than 6 months.

Immediate restoration
A restoration inserted within 48 hours after implant placement but not in occlusion.

REFERENCES
<table>
<thead>
<tr>
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<td>Fax   +41 (0)61 965 11 01</td>
<td>Fax   978/747 2490</td>
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<tr>
<td></td>
<td><a href="http://www.straumann.us">www.straumann.us</a> • <a href="http://www.straumann.ca">www.straumann.ca</a></td>
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