Smart Product Descriptions

Standard Plus Narrow Neck CrossFit® Implant

The Straumann® Narrow Neck CrossFit® Implant is a Standard Plus (SP) Soft Tissue Level Implant with an endosteal diameter of 3.3 mm. The NNC Implant has a machined neck of 1.8 mm in height and a narrow prosthetic platform of 3.5 mm in width. Its internal connection provides expanded prosthetic options and solutions for treatment in the upper and lower jaw, wherever space is limited.

We recommend Straumann® Smart customers to use the Narrow Neck CrossFit® Implant in the SmartArch indication only and to let the implant heal transmucosally. In this classic one-stage surgical procedure the implant is not covered with soft tissue during the healing phase, but the soft tissue is sutured around the Healing Cap. This provides a less invasive and time-saving treatment on your patients by avoiding a second surgical intervention.

Implant-abutment connection

Straumann® Standard Plus Narrow Neck CrossFit® Implants have an internal CrossFit® connection and a narrow prosthetic platform of 3.5 mm. Narrow Neck CrossFit® (NNC) Implants use the NNC prosthetic components.

Soft Tissue Level – Standard Plus (SP)
CrossFit® at soft tissue level

Bone Level
Body and thread design same as Straumann® Bone Level NC Implant

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Connection type	
NNC: Narrow Neck CrossFit® ∅ 3.5 mm	∅ 3.5 mm 

Endosteal implant diameters and color code

Standard Plus Narrow Neck CrossFit® Implants are available in the endosteal diameter of 3.3 mm. A unified color code simplifies identification of instruments and implants.

Color coding		
●	yellow	Endosteal implant diameter 3.3 mm

Thread pitch

The implant body of the NNC Implant is parallel-walled and has a thread pitch of 0.8 mm.

Implant lengths

NNC Implants are available in lengths of 8, 10, 12, and 14 mm.

Implant materials

NNC Implants are available in the Roxolid® material.

Straumann® Roxolid® is a metal alloy composed of 15 % zirconium and 85 % titanium. The combination of these two metals leads to an implant material with a higher tensile and fatigue strength than comparable titanium implants have[1,2].

Mechanical tests have proven that Roxolid® is actually stronger than Titanium Grade 4. The unique implant material combines high mechanical strength with excellent osteoconductivity. Thanks to their outstanding biological and mechanical properties, Roxolid® Implants offer more treatment options than conventional titanium implants[3,4].

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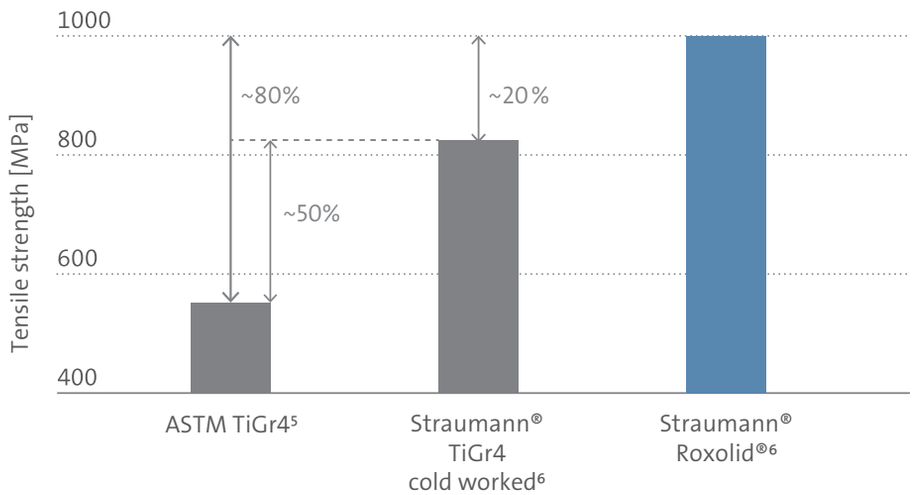


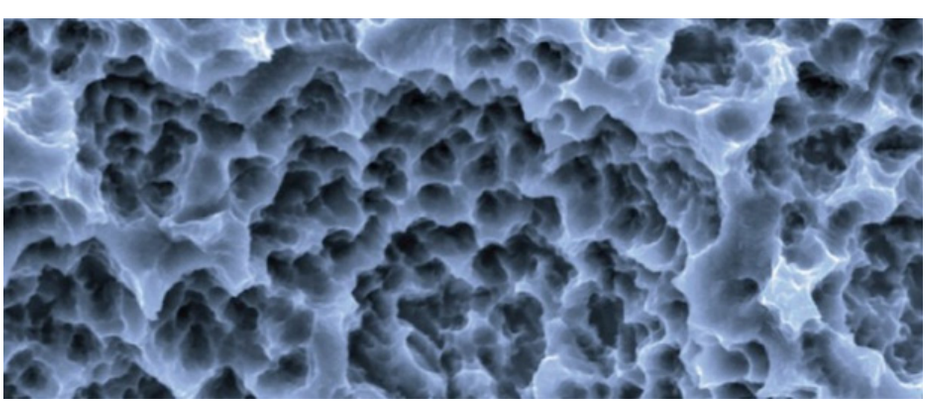
Roxolid® shows a 20 % higher tensile strength than Straumann cold worked titanium and a 80 % higher strength than standard Titanium Grade 4.

Implant surfaces

Straumann® Narrow Neck CrossFit® Implants are offered with two different implant surfaces – SLA® and SLActive®.

1. SLA® surface

The Straumann® SLA® surface is one of the most documented rough surfaces in implantology. The SLA® surface is produced using a technique that generates a macro-roughness on the implant surface followed by etching that superposes a micro-roughness. The resulting topography offers an ideal structure for cell attachment.



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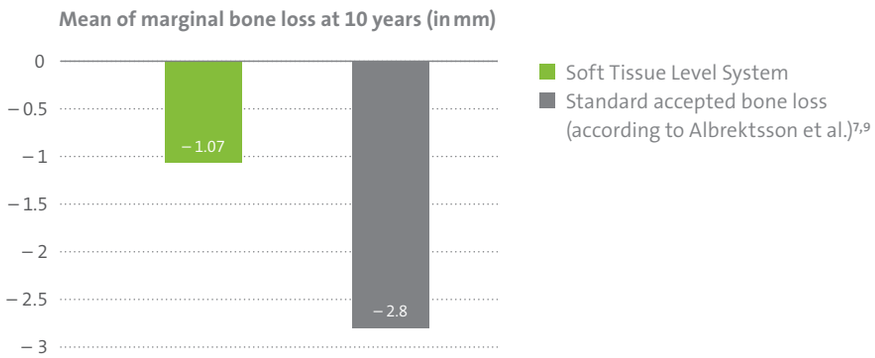
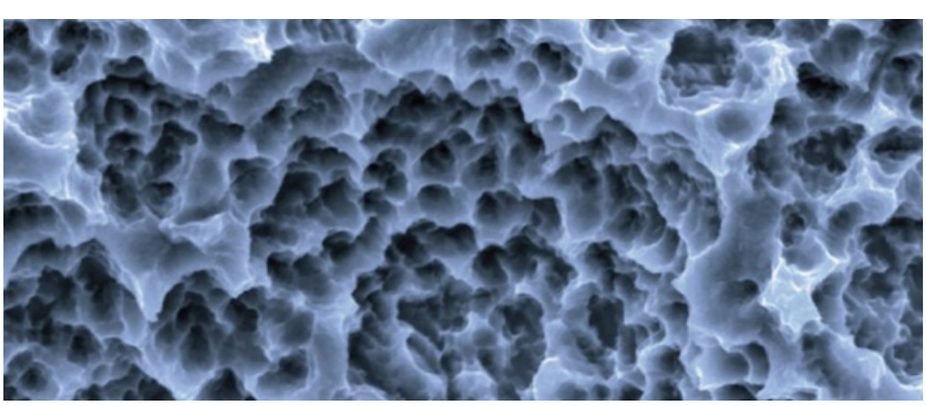
The longevity of Straumann® Soft Tissue Level Implants with the SLA® surface has been demonstrated in a long-term study. The following outstanding 10-year results on the SLA® surface were shown[7,8]:



- Unchanged survival rate: in the examined 23 patients, no implants were lost between years 5 and 10
- No statistically significant bone loss occurred between 5 and 10 years
- Prosthesis survival of 96 %
- No signs of peri-implantitis were noted at 10 years
- Patient satisfaction was high

2. SLActive® surface

The Straumann® SLActive® surface is based on the scientifically proven SLA® topography.



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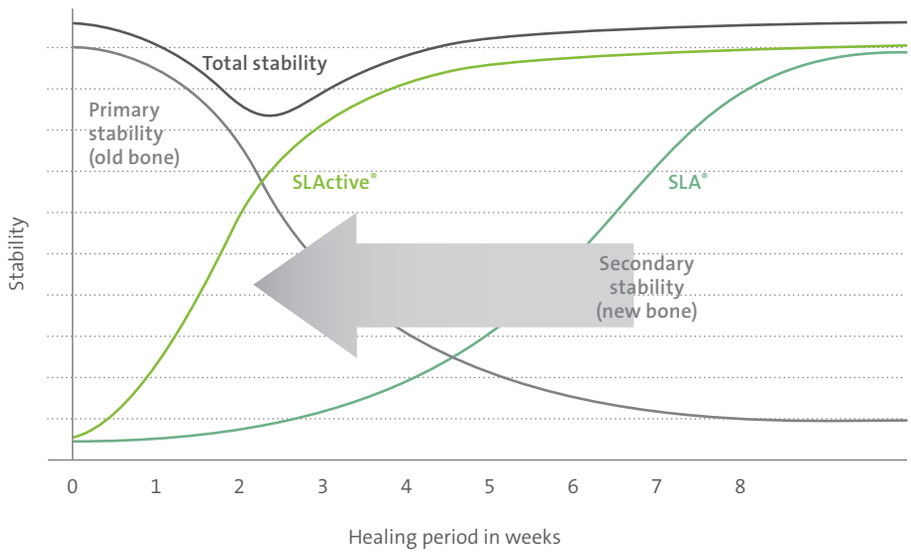
In addition, it has a fundamentally improved hydrophilic surface chemistry. SLActive® significantly accelerates the osseointegration process in the early healing phase (weeks 2-4) and delivers everything you expect from a successful and patient-friendly implant treatment.



Benefits:

- Safer and faster treatment in 3-4 weeks for all indications[10–19]
- Reduced healing times from 6-8 weeks down to 3-4 weeks[15,19–23]
- Increased treatment predictability in critical protocols[24]

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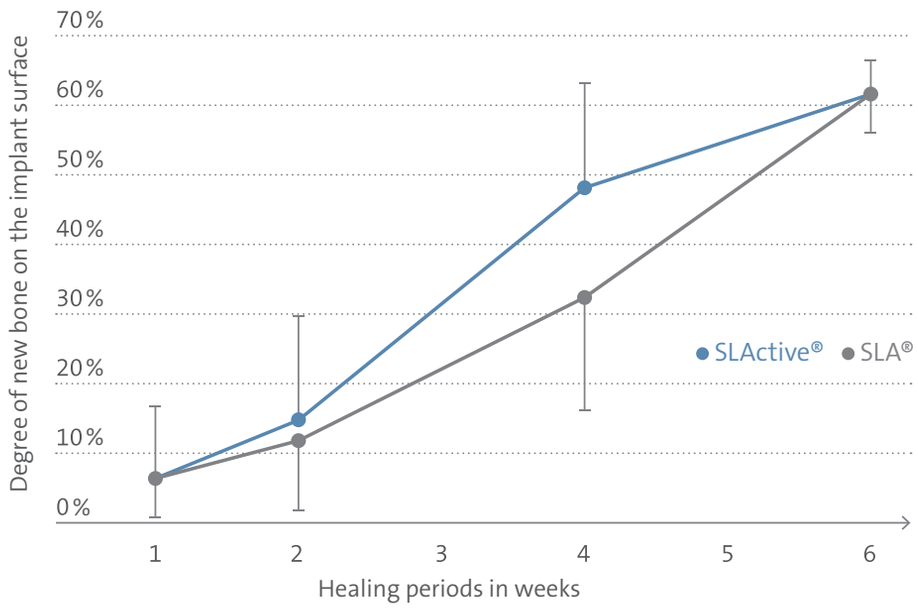

The SLActive® surface shows a faster integration into new bone after 4 weeks (50 %) compared to the SLA® surface (30 %).

Most early implant failures occur in the critical healing period between weeks 2 and 4 after implant placement[17]. Although similar healing patterns were observed for both SLA® and SLActive® Implants, bone-to-implant contact (BIC) was greater after 2 weeks and significantly greater after 4 weeks for SLActive® (p-value < 0.05)[16].

With the chemically active and hydrophilic SLActive® surface Straumann has established a new standard in oral implantology.

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Loxim™ Transfer Piece

Straumann® Standard Plus Narrow Neck CrossFit® Implants are delivered with the Loxim™ Transfer Piece, which is connected to the implant with a snap-in mounting. Its design offers various great features and benefits.

Pre-mounted Loxim™ Transfer Piece for ease of use

- Secures transport into mouth

Self-retaining

- Detaches with adapter after implant insertion

Small diameter/short

- Easy access to narrow interdental spaces and the posterior region
- Clockwise and counterclockwise turns
- Integrated extraction function in case of implant removal (only during implant insertion)

Alignment Pin

- Can be re-inserted into the implant
- Alignment in multiple implant situations

Restoration-safe torque stop

- Pre-determined breaking point protects implant connection from a higher than recommended insertion torque
- Designed for ease of implant restoration

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Recommended use of SP NNC Implants for Straumann® Smart cases

Chart of minimum widths of bone for planning which SP NNC Implant to use

Implant type (endosteal diameter)	Shoulder diameter (mm)	Bucco-lingual or bucco-palatal width of bone (mm)	Recommended use for Straumann® Smart cases
SP ∅ 3.3 mm NNC 	3.5	5.5	For narrow edentulous bone ridges. **Caution/Precaution:** Small-diameter implants are not recommended for the posterior region.

⚠ **Caution**: Always select the largest-diameter implant that can be supported by the available bone thickness, bone quality, interdental spacing, and anticipated mastication forces.

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DISCLAIMER

Straumann® Smart is a blended training and education program focused on the education of general dentists who want to become surgically active in the field of dental implantology. The program is limited to information pertaining to straightforward implant cases and focuses on a reduced portfolio of products that are suitable for the treatment of such cases.

All clinical Straumann® Smart content – such as texts, medical record forms, pictures and videos – was created in collaboration with Prof. Dr. Christoph Hämmerle, Prof. Dr. Ronald Jung, Dr. Francine Brandenberg-Lustenberger and Dr. Alain Fontolliet from the University of Zürich, Clinic for Fixed and Removable Prosthodontics and Dental Material Science, Switzerland.

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