

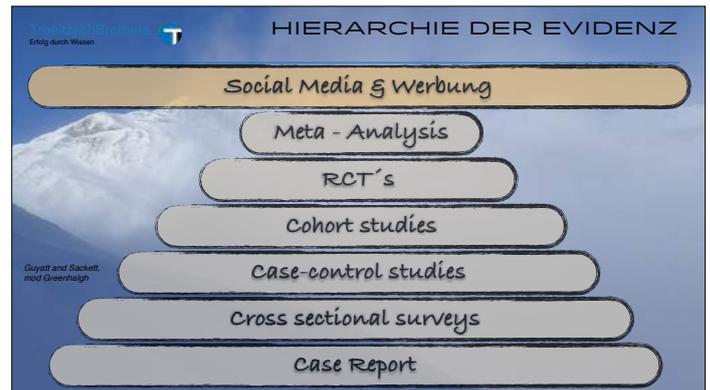
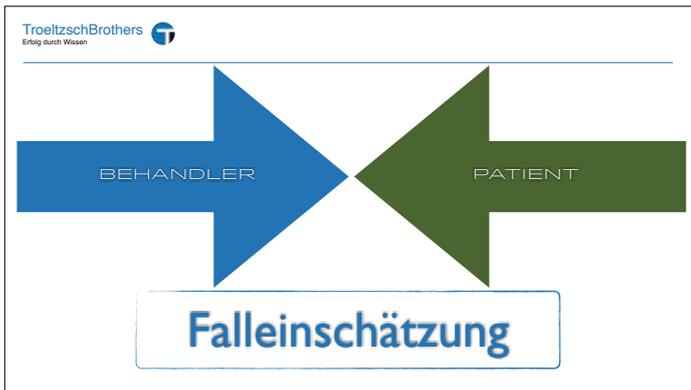
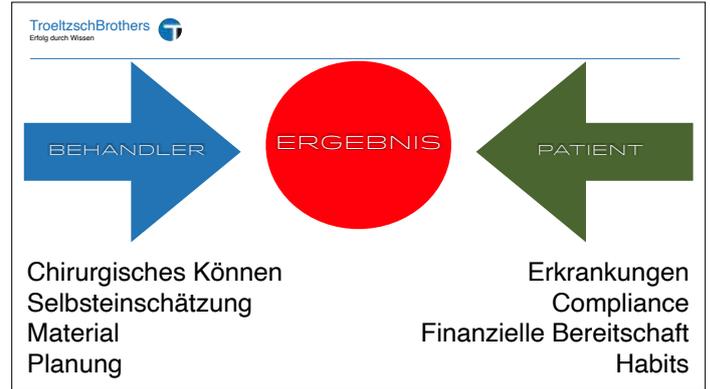


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J Clin Periodontol. 2008 Sep;35(8 Suppl):292-304. doi: 10.1111/j.1600-051X.2008.01275.x.

**Peri-implant diseases: diagnosis and risk indicators.**

Heitz-Mayfield LJ<sup>1</sup>.

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**Peri-implant diseases: diagnosis and risk indicators.**  
Heitz-Mayfield LJ<sup>1</sup>.

**BACKGROUND:** Peri-implant diseases include peri-implant mucositis, describing an inflammatory lesion of the peri-implant mucosa, and peri-implantitis, which also includes loss of supporting bone.

**METHODS:** A literature search of the Medline database (Ovid), up to 21 January 2008 was carried out using a systematic approach, in order to review the evidence for diagnosis and the risk indicators for peri-implant diseases.

**RESULTS:** Experimental and clinical studies have identified various diagnostic criteria including probing parameters, radiographic assessment and peri-implant crevicular fluid and saliva analyses. Cross-sectional analyses have investigated potential risk indicators for peri-implant disease including **poor oral hygiene, smoking, history of periodontitis, diabetes, genetic traits, alcohol consumption and implant surface**. There is evidence that probing using a light force (0.25 N) does not damage the peri-implant tissues and that bleeding on probing (BOP) indicates presence of inflammation in the peri-implant mucosa. The probing depth, the presence of BOP, and suppuration should be assessed regularly for the diagnosis of peri-implant diseases. Radiographs are required to evaluate supporting bone levels around implants. The review identified strong evidence that poor oral hygiene, a history of periodontitis and cigarette smoking, are risk indicators for peri-implant disease. Future prospective studies are required to confirm these factors as true risk factors.

**Parodontitis! Diabetes! Rauchen!**



J Periodontol. 2000 Apr;71(4):546-9.

**The effect of inter-implant distance on the height of inter-implant bone crest.**

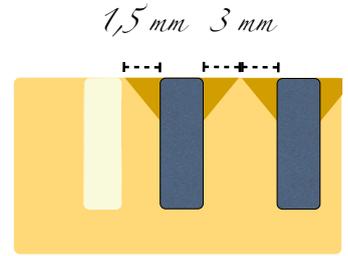
Tarnow DP<sup>1</sup>, Cho SC, Wallace SS

1. ABSTAND

**Mindestabstand:**

Implantat - Implantat: 3mm

Implantat - Wurzel: 1,5mm



Tarnow et al,  
The Effect of the Inter - Implant Distance on the Height of the Inter - Implant Bone Crest, J Periodontol. 2000 Apr;71(4):546-9

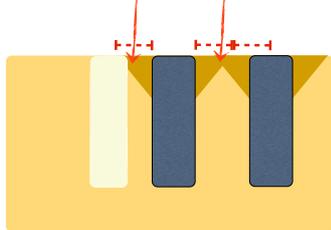
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VERLUST VON KNOCHEN !



Tarnow et al,  
The Effect of the Inter - Implant Distance on the Height of the Inter - Implant Bone Crest, J Periodontol. 2000 Apr;71(4):546-9

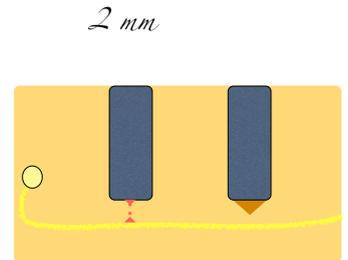
2. LÄNGE

**Implantatlänge**

Ohne Hinderniss: Lang !???

Nervnähe: 2 mm

Mindestabstand



3. SCHLEIMHAUT

Int J Oral Maxillofac Implants. 2009 Jul-Aug;24(4):712-9

**The influence of soft tissue thickness on crestal bone changes around implants: a 1-year prospective controlled clinical trial.**

Linkevicius J<sup>1</sup>, Zeman P, Durbasas S, Kizilek A

Author information

Abstract

**PURPOSE:** The aim of this clinical trial was to evaluate the influence of gingival tissue thickness on crestal bone loss around dental implants after a 1-year follow-up.

**MATERIALS AND METHODS:** Forty-six implants (23 test and 23 control) were placed in 10 patients. The test implants were placed about 2 mm apically, whereas the control implants were positioned at the bone level. Before implant placement, the tissue thickness at implant sites was measured with a periodontal probe. After healing, metal-ceramic cement-retained prosthesis were constructed. According to tissue thickness, the test implants were divided into A (thin) and B (thick) groups. Intraoral radiographs were performed and crestal bone changes were measured at implant placement and after 1 year.

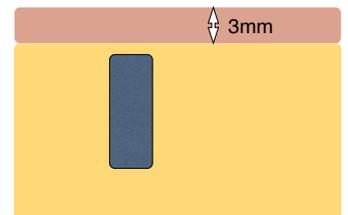
**RESULTS:** Mean bone loss around the test implants in group A (thin mucosa) was 1.61 ± 0.24 mm (SE; range, 0.9 to 3.3 mm) on the mesial and 1.26 ± 0.167 mm (range, 0.8 to 2.1 mm) on the distal. Mean bone loss in test group B (thick mucosa) implants was 2.26 ± 0.58 mm (range, 0.2 to 6.0 mm) on the mesial aspect and 0.58 ± 0.52 mm (range, 0.2 to 0.6 mm) on the distal aspect. Mean bone loss around control implants was 1.1 ± 0.154 mm (range, 0.6 to 4.0 mm) and 1.87 ± 0.195 mm (range, 0.6 to 4.1 mm) on the mesial and distal aspects, respectively. Analysis of variance revealed a significant difference in terms of bone loss between test A (thin) and B (thick) groups on both the mesial and the distal.

**CONCLUSION:** Initial gingival tissue thickness of the crest may be considered as a significant influence on marginal bone stability around implants. If the tissue thickness is 2.0 mm or less, crestal bone loss up to 1.45 mm may occur, despite a supraperiosteal position of the implant-abutment interface.

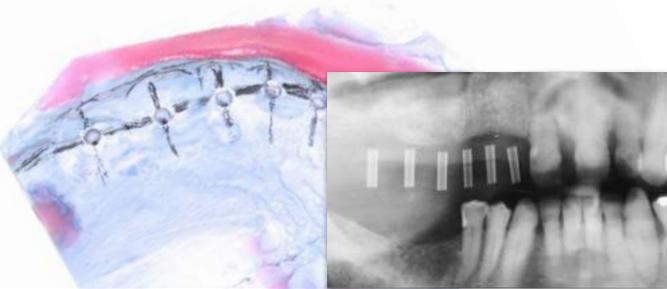
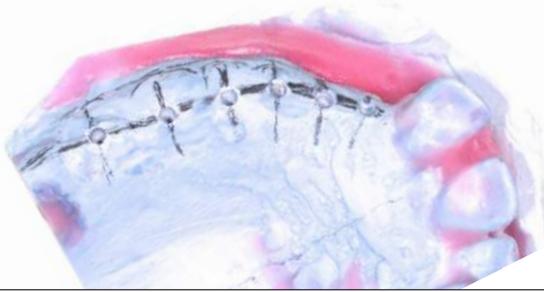
3. SCHLEIMHAUT

Etwas subcrestal (1mm)

Dicke Schleimhaut (3mm)



Linkevicius et al  
The influence of soft tissue thickness on crestal bone changes around implants: a 1-year prospective controlled clinical trial. Int J Oral Maxillofac Implants. 2009 Jul-Aug;24(4):712-9.



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WILEY

**Group 1 ITI Consensus Report: The influence of implant length and design and medications on clinical and patient-reported outcomes**

Ronald E. Jang<sup>1</sup> | Bilal Al-Nawasir<sup>2</sup> | Stephen Barua<sup>3</sup> | Naufee Brodski<sup>4</sup> | André Da Souza<sup>5</sup> | Ricardo Faria Almeida<sup>6</sup> | Jeffrey Ganets<sup>7,8,9</sup> | Hadi Ghobari<sup>10</sup> | Chir Adhiam Jokitad<sup>11,12</sup> | Hiideaki Katsuyama<sup>13</sup> | Chatchai Kusavakarn<sup>14</sup> | Nikos Mandas<sup>15</sup> | Michael Payne<sup>16</sup> | Ek Schlegel<sup>17</sup> | Raffi S. Christian Von Bruggen<sup>18</sup> | Konstantinos Diemer Wengert<sup>19</sup> | Peter Wenzel<sup>20</sup>

**Conclusions:** It is concluded that short implants (6 mm) are a valid option in situations of reduced bone height to avoid possible morbidity associated with augmentation procedures; however, they reveal a higher variability and lower predictability in survival rates. Narrow diameter implants with diameters of 2.5 mm and more demonstrated no difference in implant survival rates compared to standard diameter implants. In contrast, it is concluded that narrow diameter implants with diameters of less than 2.5 mm exhibited lower survival rates compared to standard diameter implants. It is further concluded that there are no differences between tapered versus non-tapered dental implants. Certain medications such as selective serotonin reuptake inhibitors and proton pump inhibitors showed an association with a higher implant failure rate.

WILEY

**Group 1 ITI Consensus Report: The influence of implant length and design and medications on clinical and patient-reported outcomes**

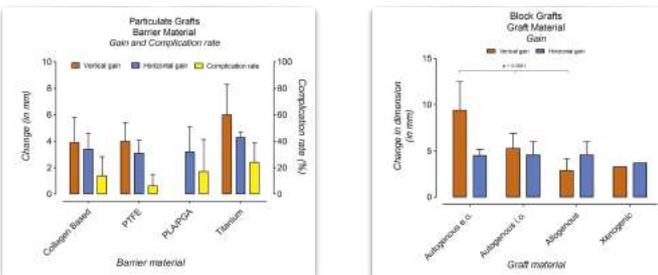
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Implantate länger als 6 mm  
und breiter als 3 mm

Standart:  
Durchmesser um 4mm  
Länge 8mm und mehr  
(abhängig von weiteren Faktoren)

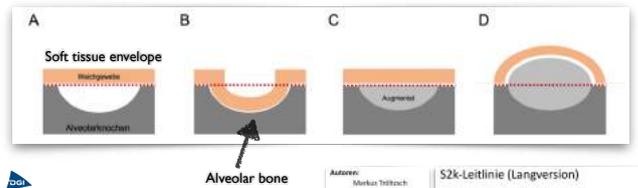
DIE IMPLANTATPOSITION MUSS SO  
GEWÄHLT WERDEN DASS EIN ÜBER 3MM  
BREITES UND MEHR ALS 6MM LANGES  
IMPLANTAT MIT 2MM ABSTAND ZU  
ANDEREN ANATOMISCHE STRUKTUREN  
UND 3 MM ABSTAND ZU ANDEREN  
IMPLANTATEN GESETZT WERDEN KANN

2. SPC



Troeltzsch et al. Clinical efficacy of grafting materials in alveolar ridge augmentation: A systematic review. Journal of Crani-Maxillo-Facial Surgery (2016)

DEFECT - BIOLOGY



Autoren:  
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Erik Schlegelitz  
Philipp Broderick  
Blau Al-Nawas

S2k-Leitlinie (Langversion)  
**Implantologische Indikationen  
für die Anwendung von  
Knochenersatzmaterialien**  
AWMF-Registernummer: 085-009

FACTOR 1: SITE

FACTOR 1: SITE  
FACTOR 2: PATIENT

## COMPLICATIONS

### 1. What to expect

Depends on:  
patient  
site  
surgeon

### 2. How to handle it ?

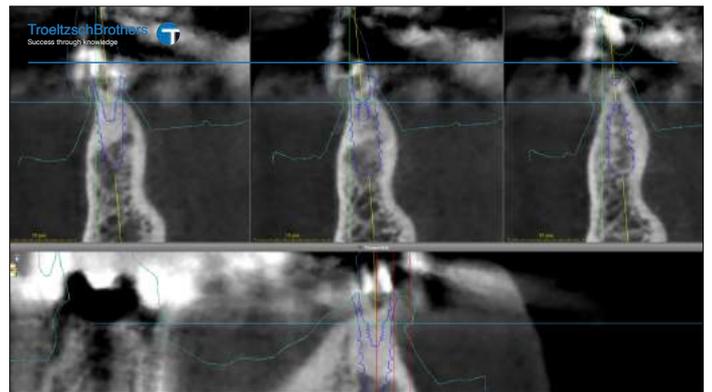
Depends on:  
pre-planning  
site  
surgeon

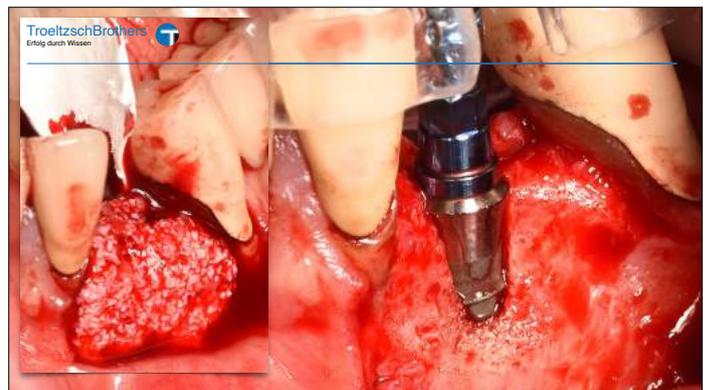
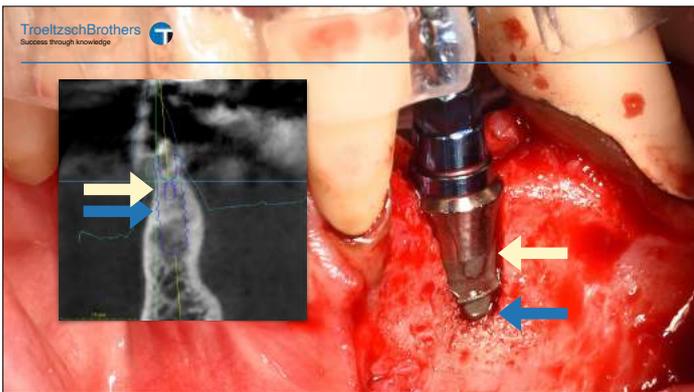
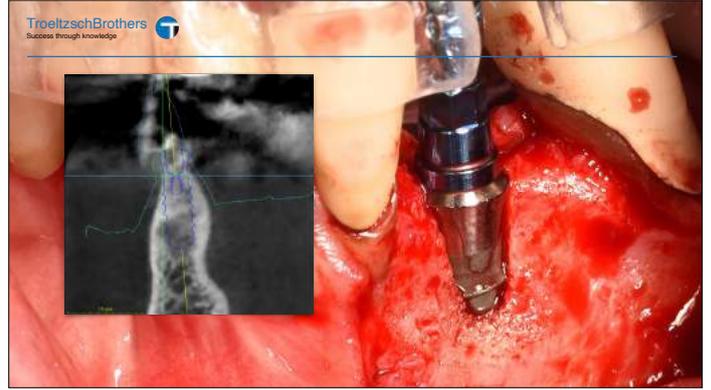
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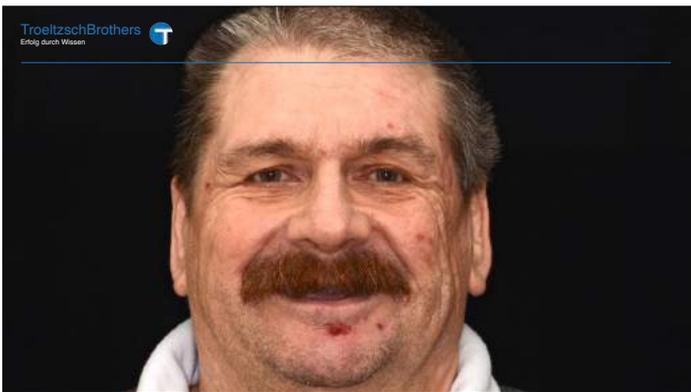
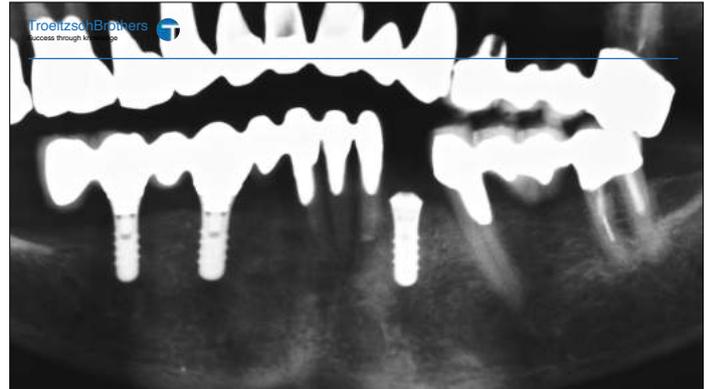
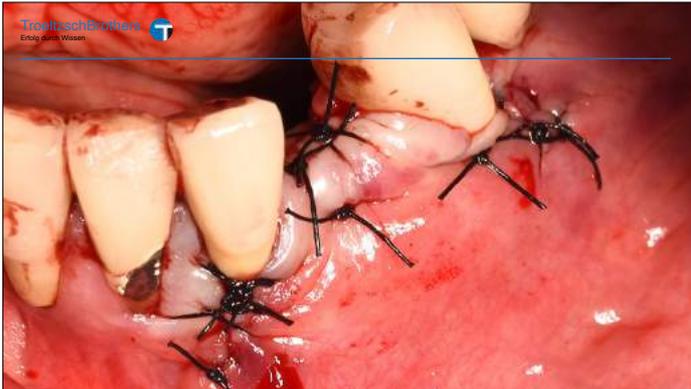
FACTOR 2: PATIENT

FACTOR 3: COMPLICATIONS

## 3. Fälle



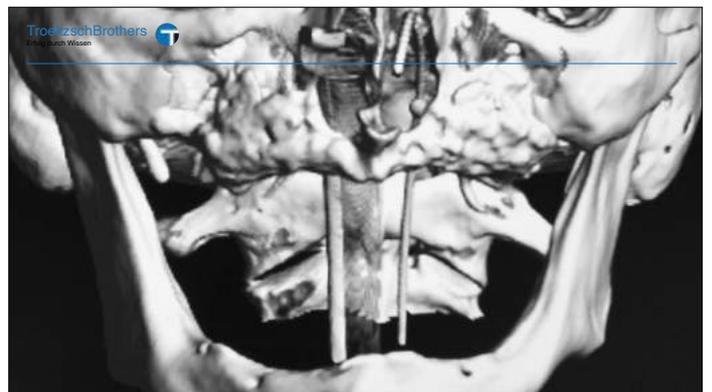
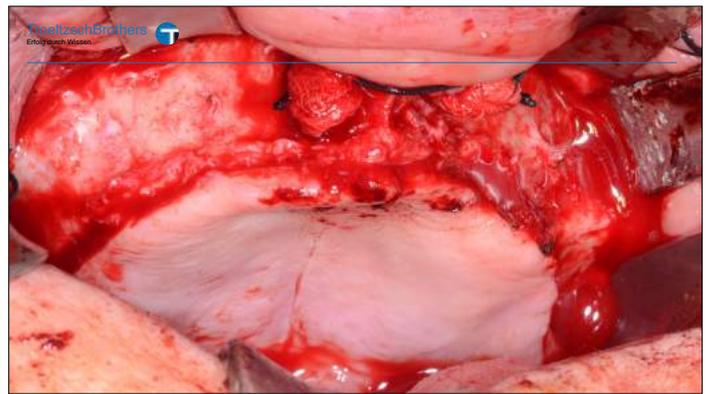
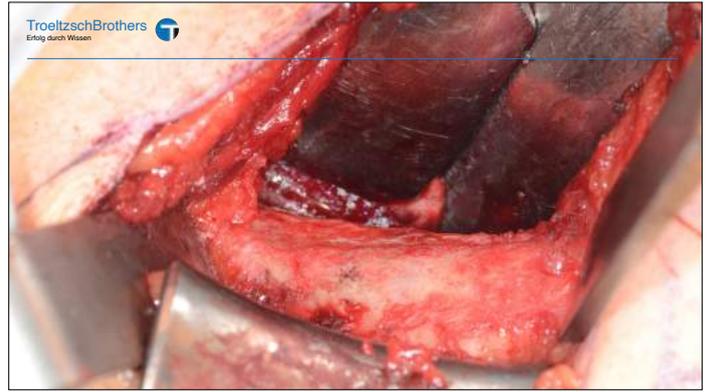


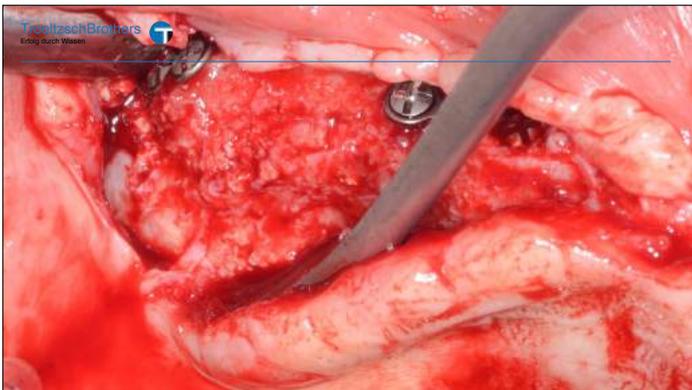


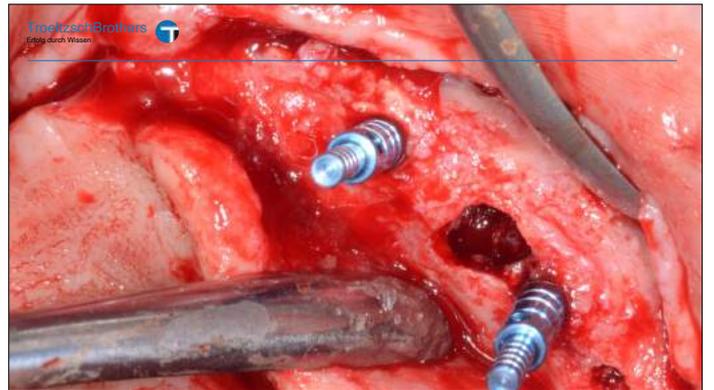
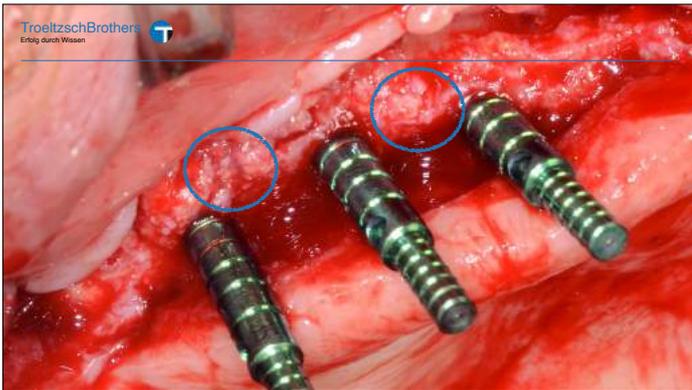
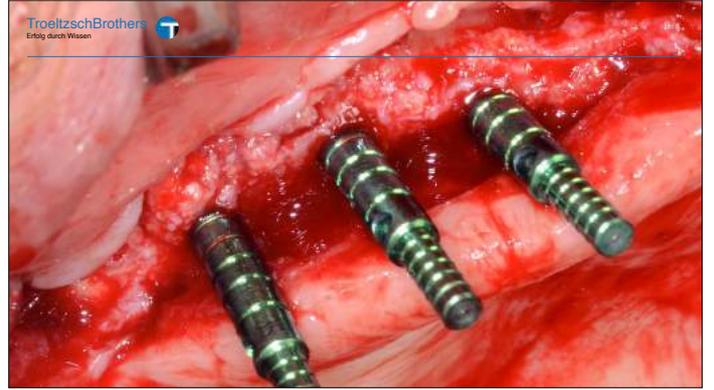
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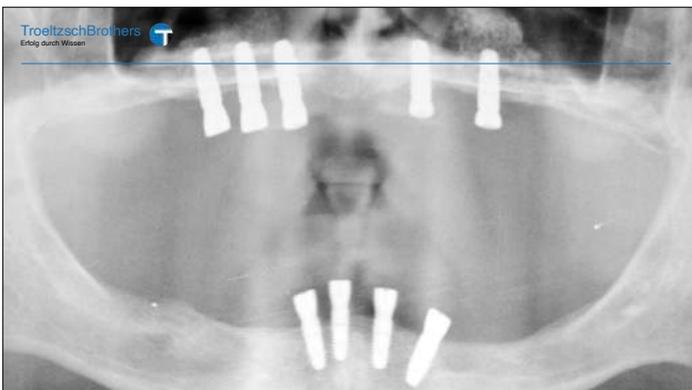
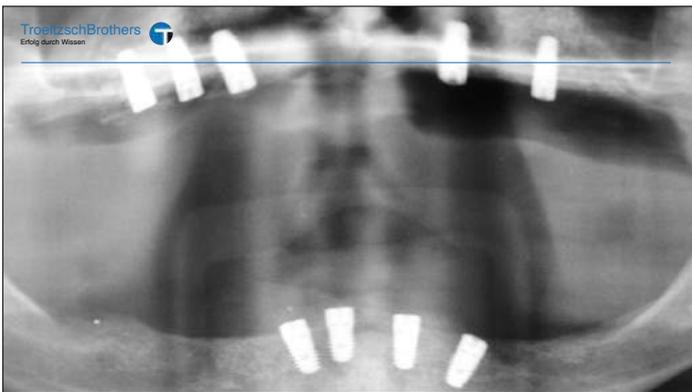
Kardiovaskulär	Metabolisch	Onkologisch
z.B. Herzinfarkt, Schlaganfall, Thrombose	z.B. Diabetes, Osteoporose	z.B. Karzinome, Lymphome
Cave: Antikoagulation, Notfälle	Cave: Immunsuppression Bisphosphonate	Cave: Immunsuppression Bisphosphonate

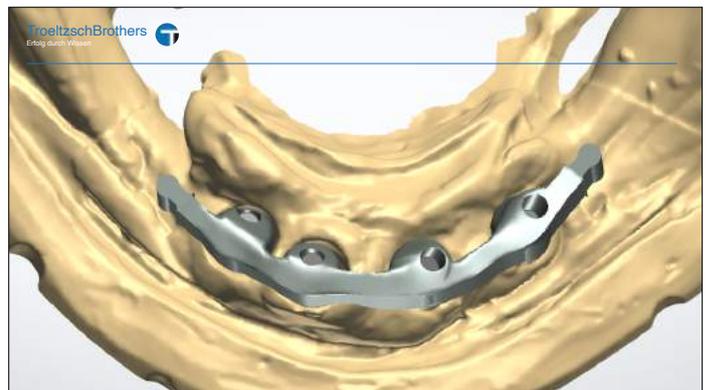
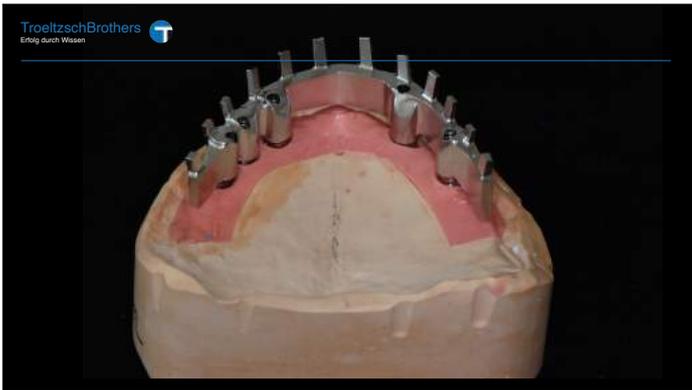
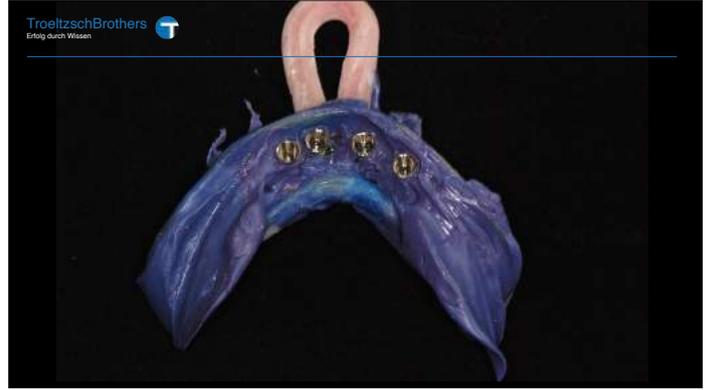
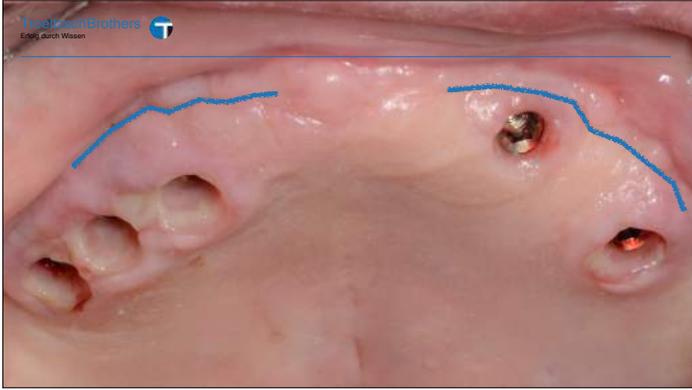


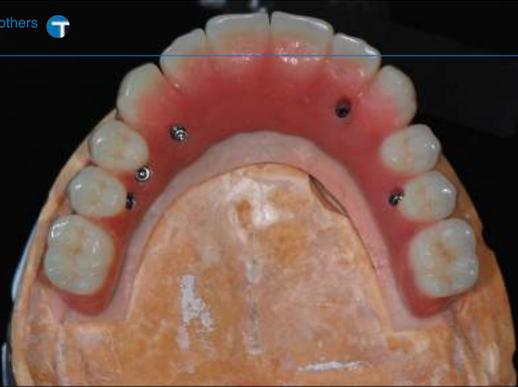
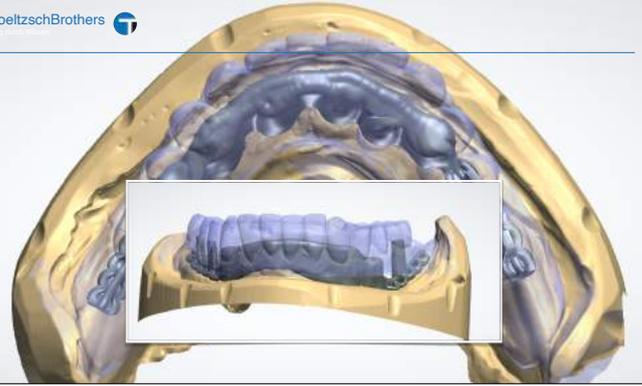
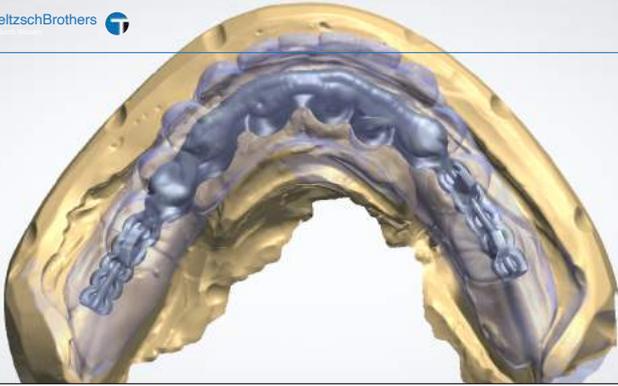














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ZWISCHENFAZIT

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DIE IMPLANTATPOSITION MUSS NACH PROTHETISCHEN POSITION FESTGELEGT WERDEN.  
FALLS AN DIESER NICHT GENÜGENDE OSSÄRE GRUNDLAGE BESTEHT MUSS AUGMENTIERT WERDEN.



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ZWISCHENFAZIT

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AUCH MODERNE VERFAHREN SIND NICHT KOMPLIKATIONSFREI UND MÜSSEN MIT KLINISCHEN UND WISSENSCHAFTLICHEN WISSEN BEURTEILT WERDEN.



Implantate länger als 6 mm und breiter als 3 mm haben vergleichbare Einheilraten wie längere Implantate. Über 8 mm Länge und ab 4 mm Breite kann als Standard gesehen werden.

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Die Planung erfolgt nach dem prothetischen Bedürfnis (Backward planning).

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Die Planung erfolgt nach dem prothetischen Bedürfnis (Backward planning).

3D Planung hat Komplikationsmöglichkeiten.

