







Overall strengths and weaknesses

<p>Bone Level</p> 	<p>Nobel Replace</p> 
<p>Company/system strengths:</p> <ul style="list-style-type: none"> ▪ High predictability with Bone Control Design™ and scientific evidence on products ▪ One surgical kit for all implants in the portfolio ▪ Streamlined portfolio for entire implant system <p>Product strengths:</p> <ul style="list-style-type: none"> ▪ Bone Control Design™: optimized crestal bone and soft tissue preservation ▪ CrossFit™ Connection: feel the fit of the self-guiding connection ▪ Consistent Emergence Profiles™ for simplified soft tissue management from start to finish 	<p>Company/system weakness:</p> <ul style="list-style-type: none"> ▪ TiUnite surface for 3-month healing time ▪ Large portfolio with potential for confusion ▪ Multiple surgical kits required <p>Product weaknesses:</p> <ul style="list-style-type: none"> ▪ Fewer positioning options due to tri-channel design ▪ Aggressive threads at the coronal portion may damage the buccal wall ▪ Flat-top connection



Implant comparison – surface characteristics

Bone Level 	Nobel Replace 
<ul style="list-style-type: none">▪ SLActive: higher security, faster osseointegration (3–4 weeks), increased treatment predictability▪ SLA surface for 6–8 week healing time	<ul style="list-style-type: none">▪ TiUnite surface for 3-month healing time






Implant comparison – implant design

Bone Level 	Nobel Replace 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ Bone Control Design™ ▪ In addition <ul style="list-style-type: none"> ○ High fatigue stability – well above competitive benchmark ○ Scientific studies (SLActive, TE, new studies on Straumann® Bone Level Implant) <p>Straumann Weaknesses:</p> <ul style="list-style-type: none"> ▪ No color coding on the implant body ▪ Comes with a pre-mount design (Transfer piece) 	<p>Nobel Strengths:</p> <ul style="list-style-type: none"> ▪ Grooves on threads and collars (“Groovy” feature) ▪ TiUnite all the way up to the top of the implant ▪ Long length of engagement of internal connection – offers minimal micromovement ▪ Color-coding on implant body ▪ Comes with a mountless design (i.e. snap-fitted transfer-piece/implant carrier) <p>Nobel Weaknesses:</p> <ul style="list-style-type: none"> ▪ TiUnite as not state-of-the-art surface ▪ Microgap located at bone crest (bone loss expected) ▪ Limited scientific data supporting the benefit of the “Groovy” feature ▪ Aggressive thread pattern from top of implant to apex (chance of bone necrosis) ▪ Implant designs do not respect biological distance



Prosthetic comparison – prosthetic connection

<p>Bone Level</p> 	<p>Nobel Replace</p> 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ CrossFit™ Connection: Feel the fit of the self-guiding connection <ul style="list-style-type: none"> ○ Clear-cut tactile feedback confirms proper abutment seating ○ Easy insertion and high flexibility for multi unit restorations through 15 degree 	<p>Nobel Strengths:</p> <ul style="list-style-type: none"> ▪ Deep internal connection (“tube-in-tube”) ▪ Optimal ease of use of internal abutment connection ▪ Confirmation by tactile feel of abutment seating <p>Nobel weaknesses:</p> <ul style="list-style-type: none"> ▪ Fewer positioning options with 3 grooves ▪ Deep connection and long screws can be disadvantageous when taking impression ▪ Reduced flexibility for splinted restorations, due to flat-top design



Prosthetic comparison – soft tissue management options and temporization

<p>Bone Level</p>  	<p>Nobel Replace</p>   
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ Consistent Emergence Profiles™ ▪ Customizable Healing Abutment for optimal soft tissue management ▪ Complete portfolio of healing abutments (incl. bottle shape and conical designs) ▪ Titanium reinforced PEEK Temporary Abutment for easy modification, precision and stability 	<p>Nobel Strengths:</p> <ul style="list-style-type: none"> ▪ Comprehensive range of healing abutments ▪ Color-coding of healing abutments ▪ Temporary abutment easy for chair-side modification (polymer material) <p>Nobel weaknesses:</p> <ul style="list-style-type: none"> ▪ No Customizable Healing Abutment ▪ No esthetic color of Temporary Abutment ▪ No bottle shape Healing Abutment ▪ Temporary abutment less stable (no titanium reinforcement)

Prosthetic comparison – abutment options

<p>Bone Level</p> 	<p>Nobel Replace</p> 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ Standard, pre-prepped and customizable (CARES) abutment options ▪ Cementable abutments as easy to use option ▪ Anatomic abutments as pre-prepped abutment option ▪ Cast-to solutions for high flexibility ▪ Comprehensive range of PLAN Abutments for easy and fast prosthetic planning (sterilizable, to be used chair-side) ▪ Consistent Emergence Profiles™: matching profiles between healing components, temporary and final restoration 	<p>Nobel Strengths:</p> <ul style="list-style-type: none"> ▪ Stock and customizable abutment options ▪ CAD-CAM and ceramic option available through Procera option ▪ Comprehensive range of stock abutments and materials (Ti, gold, ceramic) ▪ Simplicity of the Easy Abutment (handling) ▪ Simple procedures for creating esthetic results <p>Nobel Weaknesses:</p> <ul style="list-style-type: none"> ▪ No stock abutments with consistent emergence profiles available

Summary NobelReplace

	Connection	Biological Aspects	Esthetic Components
Nobel Replace 	<ul style="list-style-type: none"> ▪ Deep internal connection ▪ Optimal ease of use ▪ Tactile feedback 	<ul style="list-style-type: none"> ▪ TiUnite covers entire implant surface – 3 months of healing time ▪ Grooves on threads and collars („Groovy“) ▪ Long internal connection 	<ul style="list-style-type: none"> ▪ Simple Esthetics: individualized crowns and bridges (Procera) ▪ Simple procedure ▪ Esthetic components made of ceramic
Straumann® Bone Level Implant 	CrossFit™ Connection <ul style="list-style-type: none"> ▪ Flexibility – 15 degree cone ▪ Stability – optimal force transmission through conical connection ▪ Precision – 4 (instead of 3) grooves for anti rotation and conical connection for minimized micro movements ▪ Simplicity – ease of insertion of prosthetic components ▪ Tactile Feedback 	Bone Control Design™ <ul style="list-style-type: none"> ▪ Implant surface osseointegration – SLActive (3–4 weeks osseointegration) ▪ Microgap control – less opportunity for microleakage ▪ Biomechanical implant design – optimized to stimulate crestal bone ▪ Respecting the biological distance – horizontal offset of the microgap ▪ Optimal position of smooth and rough surface 	Consistent Emergence Profiles™ <ul style="list-style-type: none"> ▪ Minimized complications and optimized results ▪ Simplified soft tissue management process ▪ Easy fabrication of temporary and final restorations Esthetic components <ul style="list-style-type: none"> ▪ Ceramic solutions, Anatomic abutments ▪ Customizable HA, Temporary Abutment, Bottle shape HA
	+	+	

Agenda

Nobel



Astra

Ankylos



3i

Summary



Overall strengths and weaknesses

<p>Bone Level</p> 	<p>Fixture MicroThread™ – Osseospeed™</p> 
<p>Company/system strengths:</p> <ul style="list-style-type: none"> ▪ High predictability with Bone Control Design™ and scientific evidence on products ▪ One surgical kit for all implants in the portfolio ▪ Streamlined portfolio for entire implant system <p>Product strengths:</p> <ul style="list-style-type: none"> ▪ Bone Control Design™: optimized crestal bone and soft tissue preservation ▪ CrossFit™ Connection: feel the fit of the self-guiding connection ▪ Consistent Emergence Profiles™ for simplified soft tissue management from start to finish 	<p>Company/system weakness:</p> <ul style="list-style-type: none"> ▪ Illogical surgical cassette (complex work flow concept) ▪ Complex surgical protocol (differences between single implants) <p>Product weaknesses:</p> <ul style="list-style-type: none"> ▪ Problems with the new implant carrier (loosening prior to implant insertion)



Implant comparison – surface characteristics

<p>Bone Level</p> 	<p>Fixture MicroThread™– OsseoSpeed™</p> 
<ul style="list-style-type: none">▪ SLActive: higher security, faster osseointegration (3–4 weeks), increased treatment predictability▪ SLA surface for 6–8 week healing time	<ul style="list-style-type: none">▪ Osseospeed™: fluoride-modified fixture surface (6–8 weeks healing time)




Implant comparison – implant design

<p>Bone Level</p> 	<p>Fixture MicroThread™ – OsseoSpeed™</p> 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ Bone Control Design™ ▪ In addition <ul style="list-style-type: none"> ○ High fatigue stability – well above competitive benchmark ○ Scientific studies (SLActive, TE, new studies on Straumann® Bone Level Implant) <p>Straumann Weaknesses:</p> <ul style="list-style-type: none"> ▪ No color coding on the implant body ▪ Comes with a pre-mount design (Transfer piece) 	<p>Astra Strengths:</p> <ul style="list-style-type: none"> ▪ Osseospeed™ (proven and well-documented, Astra claims) ▪ MicroThread™ (“threads on the neck; offer optimal load distribution and lower stress values”) ▪ Conical Seal Design (11° conical connection for microgap control) <p>Astra Weaknesses:</p> <ul style="list-style-type: none"> ▪ Only one study (pre-clinical) on MicroThreads ▪ Very weak documentation of Osseospeed™ ▪ Low fatigue stability ▪ Suboptimal position of rough to smooth surface interface: polished collar



Prosthetic comparison – prosthetic connection

<p>Bone Level</p> 	<p>Fixture MicroThread™ – OsseoSpeed™</p> 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ CrossFit™ Connection: Feel the fit of the self-guiding connection <ul style="list-style-type: none"> ○ Clear-cut tactile feedback confirms proper abutment seating ○ Easy insertion and high flexibility for multi unit restorations through 15 degree 	<p>Astra Strengths:</p> <ul style="list-style-type: none"> ▪ Conical Seal Design™ (“seals off the interior of the implant from surrounding tissues and microbacterial proliferation, minimizing micro-movements and micro-leakage”) ▪ 12 positions in the implant simplify surgical procedure <p>Astra Weaknesses:</p> <ul style="list-style-type: none"> ▪ Demands a special “insert” to fit with Cresco ▪ Complicated handling for the prosthodontist and the dental technician: difficult to position restorative components



Prosthetic comparison – soft tissue management options and temporization

<p>Bone Level</p>  	<p>Fixture MicroThread™– OsseoSpeed™</p> 
<p>Straumann Strengths:</p> <ul style="list-style-type: none"> ▪ Consistent Emergence Profiles™ ▪ Customizable Healing Abutment for optimal soft tissue management ▪ Complete portfolio of healing abutments (incl. bottle shape and conical designs) ▪ Titanium reinforced PEEK Temporary Abutment for easy modification, precision and stability 	<p>Astra Strengths:</p> <ul style="list-style-type: none"> ▪ Temporary abutments in titanium ▪ Zebra healing abutments (indication of gingiva heights) <p>Astra Weaknesses:</p> <ul style="list-style-type: none"> ▪ No temporary solution for chair-side handling (plastic) ▪ Emergence profiles not consistent throughout the whole portfolio

Prosthetic comparison – abutment options

Bone Level 	Fixture MicroThread™ – OsseoSpeed™ 
Straumann Strengths: <ul style="list-style-type: none">▪ Standard, pre-prepped and customizable (CARES) abutment options▪ Cementable abutments as easy to use option▪ Anatomic abutments as pre-prepped abutment option▪ Cast-to solutions for high flexibility▪ Comprehensive range of PLAN Abutments for easy and fast prosthetic planning (sterilizable, to be used chair-side)▪ Consistent Emergence Profiles™: matching profiles between healing components, temporary and final restoration	Astra Strengths: <ul style="list-style-type: none">▪ Pre-prepped abutments in titanium and zirconia▪ Abutments in different designs▪ Direct abutment (copy of Straumann’s solid abutment) Astra Weaknesses: <ul style="list-style-type: none">▪ No CAD/CAM solution▪ Few options▪ The prosthetic part is complicated and confusing▪ Sometimes complicated to prepare the abutments

Summary Astra

	Connection	Biological Aspects	Esthetic Components
<p>Astra</p>  <p>Biomangement Complex™</p>	<ul style="list-style-type: none"> ▪ 11° internal cone ▪ Seals off the interior ▪ Minimized movements and leakage ▪ 12 positions ▪ Self-guiding, atraumatic insertion of restoration 	<ul style="list-style-type: none"> ▪ Optimized osseointegration 6–8 weeks ▪ Threads on the neck ▪ Optimal load distribution and lower stress values 	<ul style="list-style-type: none"> ▪ Increased connective soft tissue contact zone ▪ To seal off and protect the marginal bone
<p>Straumann® Bone Level Implant</p> 	<p>CrossFit™ Connection</p> <ul style="list-style-type: none"> ▪ Stability – optimal force transmission through 15 degree conical connection ▪ Flexibility – 15 degree cone ▪ Precision – 4 grooves for anti rotation and 15 degree cone for minimized micro movements ▪ Simplicity – ease of insertion of prosthetic components on bone level (4 positions) ▪ Clear-cut tactile feedback confirms proper abutment seating 	<p>Bone Control Design™</p> <ul style="list-style-type: none"> ▪ Implant surface osseointegration – SLActive (3–4 weeks) ▪ Microgap control – less opportunity for microleakage ▪ Biomechanical implant design – optimized to stimulate crestal bone ▪ Respecting the biological distance – horizontal offset of the microgap ▪ Optimal position of smooth and rough surface 	<p>Consistent Emergence Profiles™</p> <ul style="list-style-type: none"> ▪ Minimized complications and optimized results ▪ Simplified soft tissue management process ▪ Easy fabrication of temporary and final restorations <p>Esthetic components</p> <ul style="list-style-type: none"> ▪ Ceramic solutions, Anatomic abutments ▪ Customizable HA, Temporary Abutment (chair-side handling), bottle shape Healing Abutment
	+		+

Agenda

Nobel

Astra

Ankylos

3i

Summary

Connection: ANKYLOS® TissueCare Connection

- Internal tapered ANKYLOS® Tissue care connection at bone level

Ankylos' claims:

One connection for all implant diameters

Superior stability –
no micromovement

Extremely tight –
no microgap





Part of the system –
Platform-Shifting®

And our answers!



ANKYLOS® offers: *„one connection for all implant diameters“*



			
A8*	B8	C8	D8
3.5 mm	4.5 mm	5.5 mm	7 mm
8 mm	8 mm	8 mm	8 mm
3101 0205	3101 0225	3101 0253	3101 0272

→ STMN offers the RC connection for the implants with Ø4.1mm and Ø4.8mm to assure optimal strength

ANKYLOS® states:

„Superior stability – no micromovement“

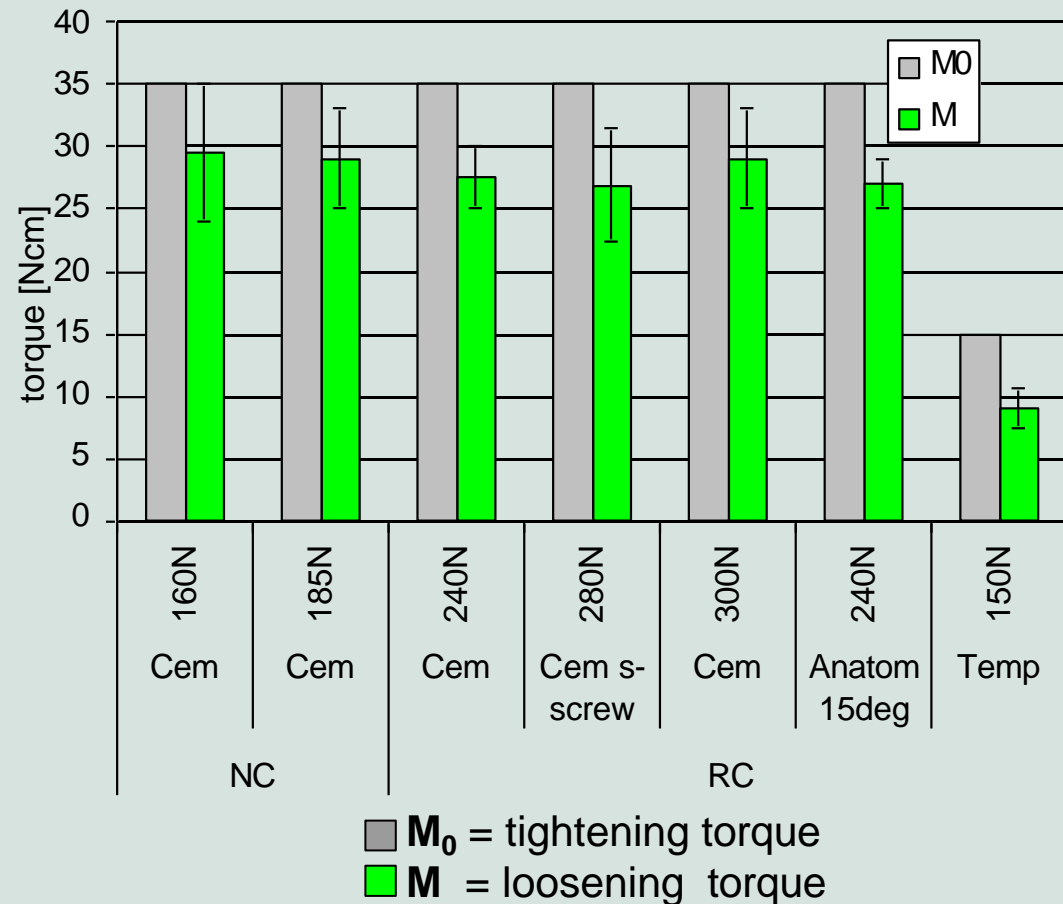
STMN answer:

Results

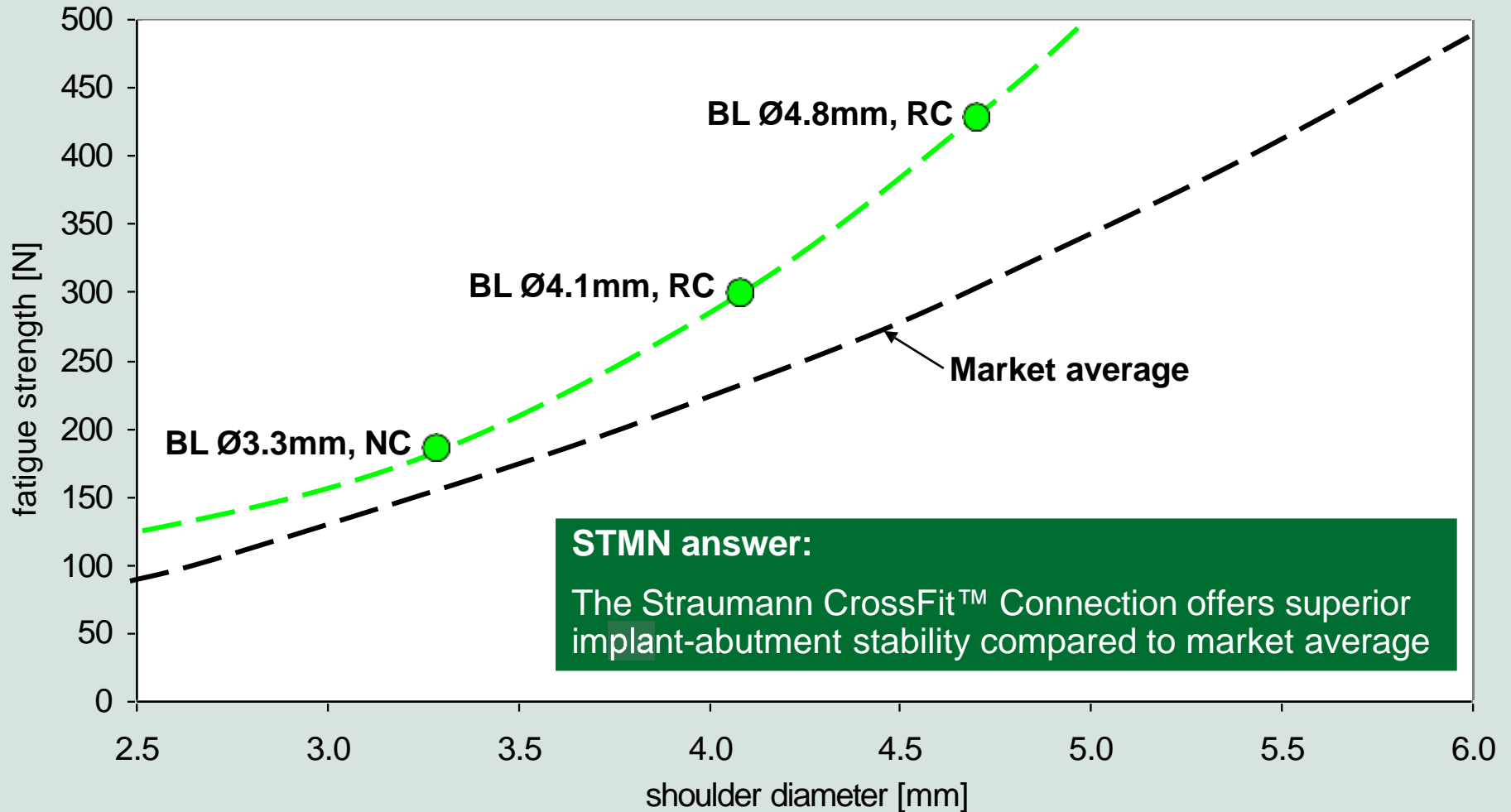
- Average loosening torque only 20% lower than tightening torque

Conclusions

- Similar to competitors
- **No evidence** of screw loosening

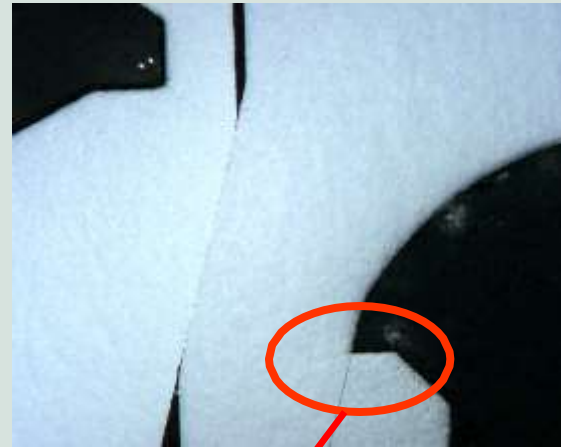
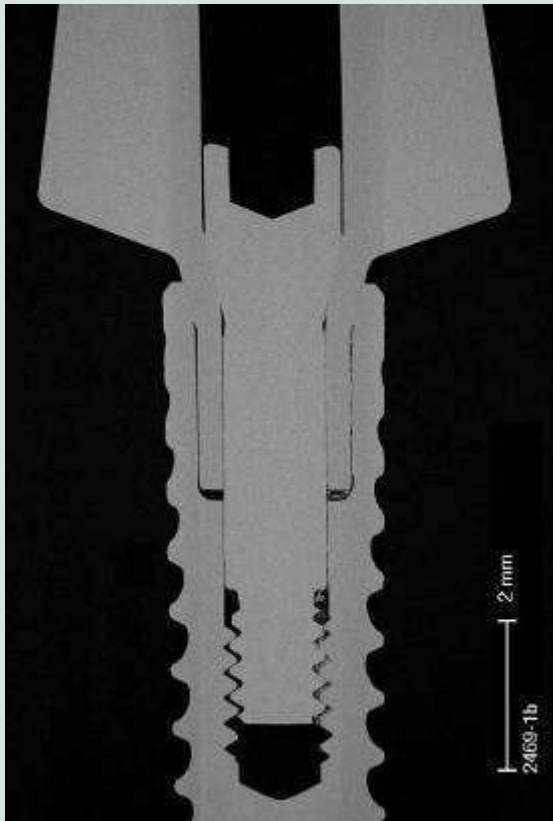


ANKYLOS® states: „Superior stability – no micromovement“



ANKYLOS® states:
„Extremely tight – no microgap“

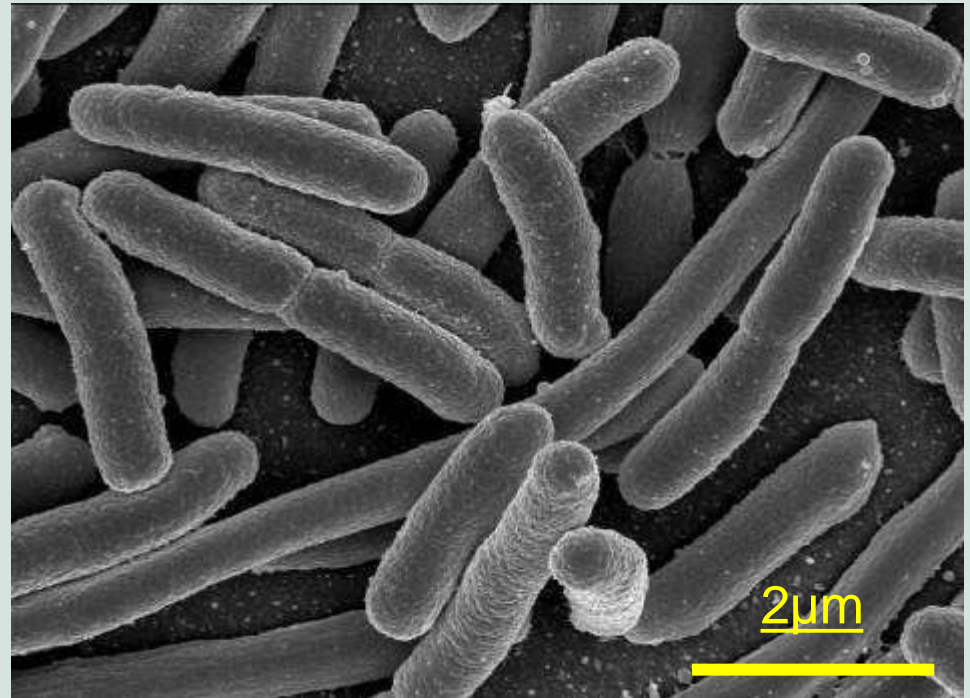
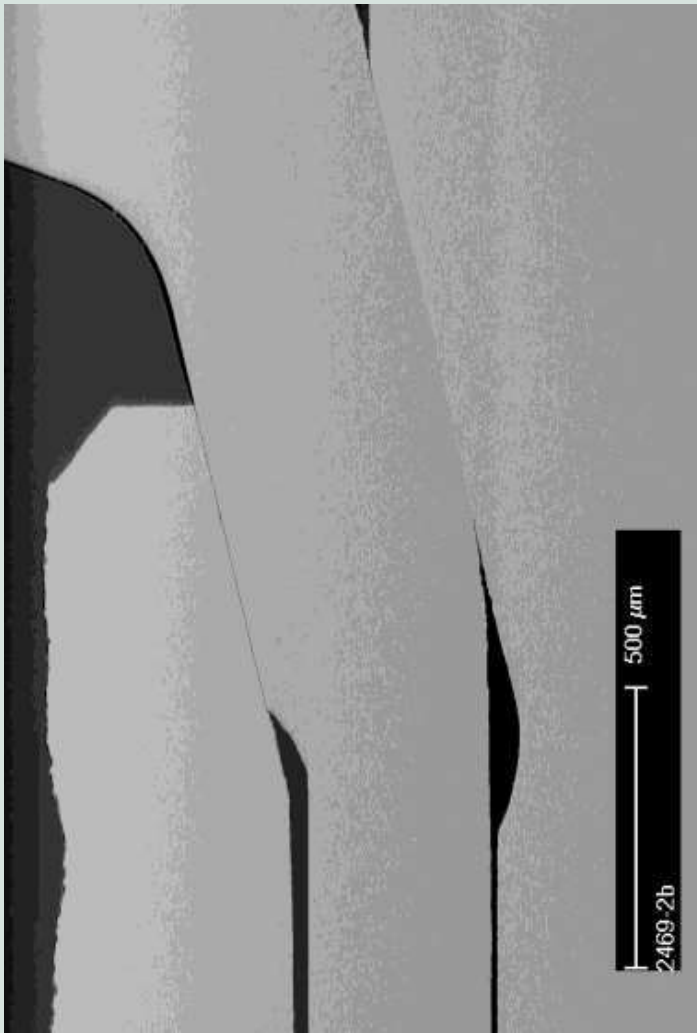
CrossFit™



STMN answer:

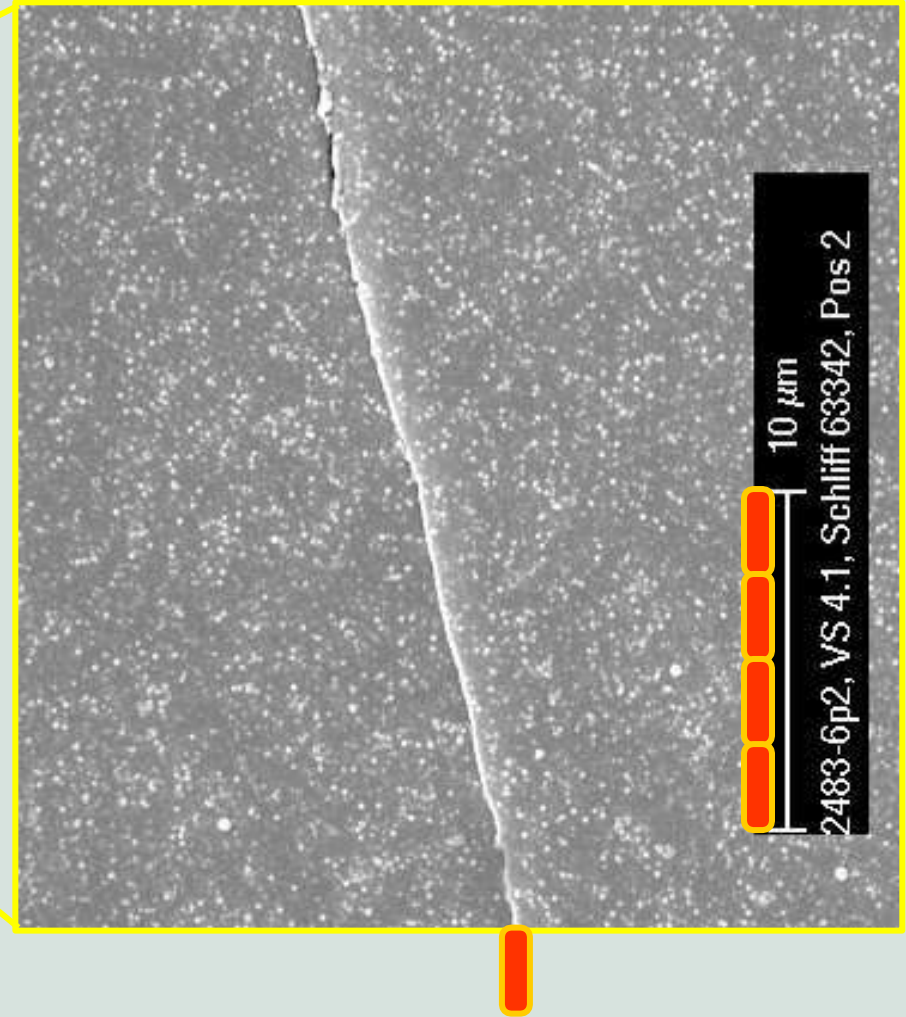
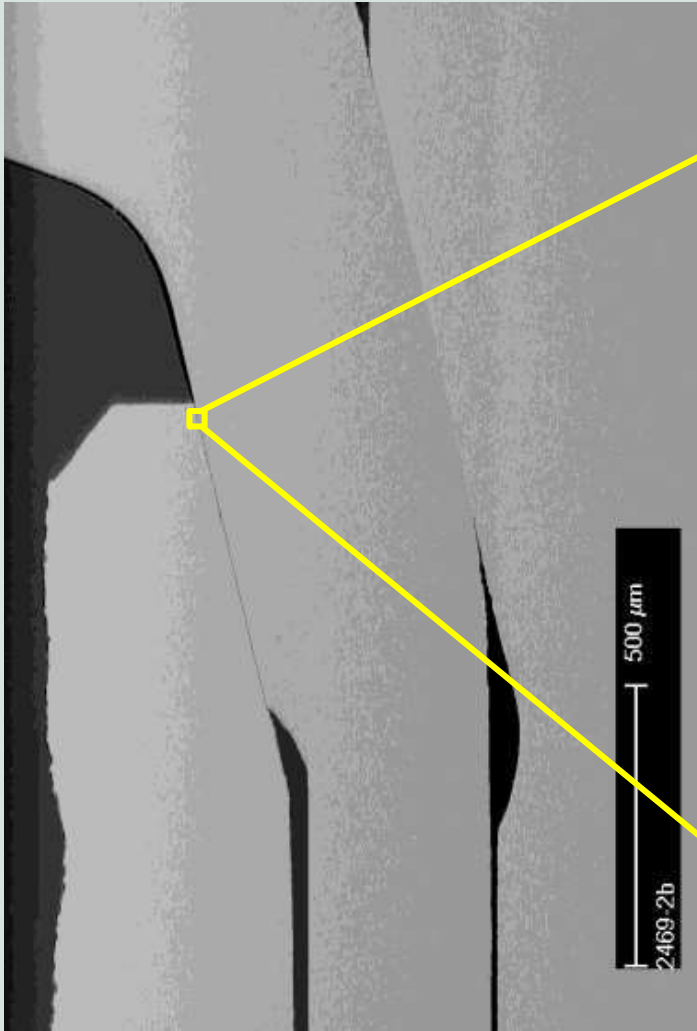
No gap can be measured for the Straumann CrossFit™ Connection

Microgap measurements



E.coli bacteria

Microgap measurements



Microgap measurements

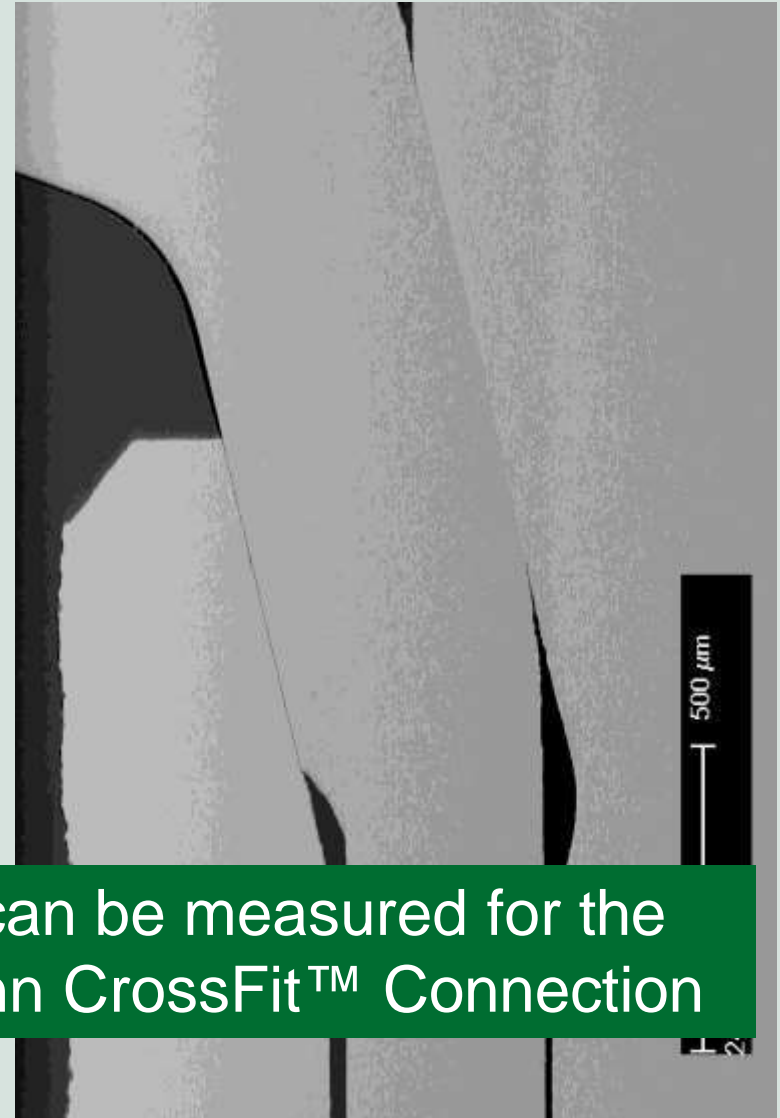
Results

- Microgap between implant and abutment: $0.6 \pm 0.3 \mu\text{m}$ (n=36)
- similar precision between abutment and screw head

Conclusions

- Microgap smaller than an E.coli bacterium
- Comparable to Ankylos

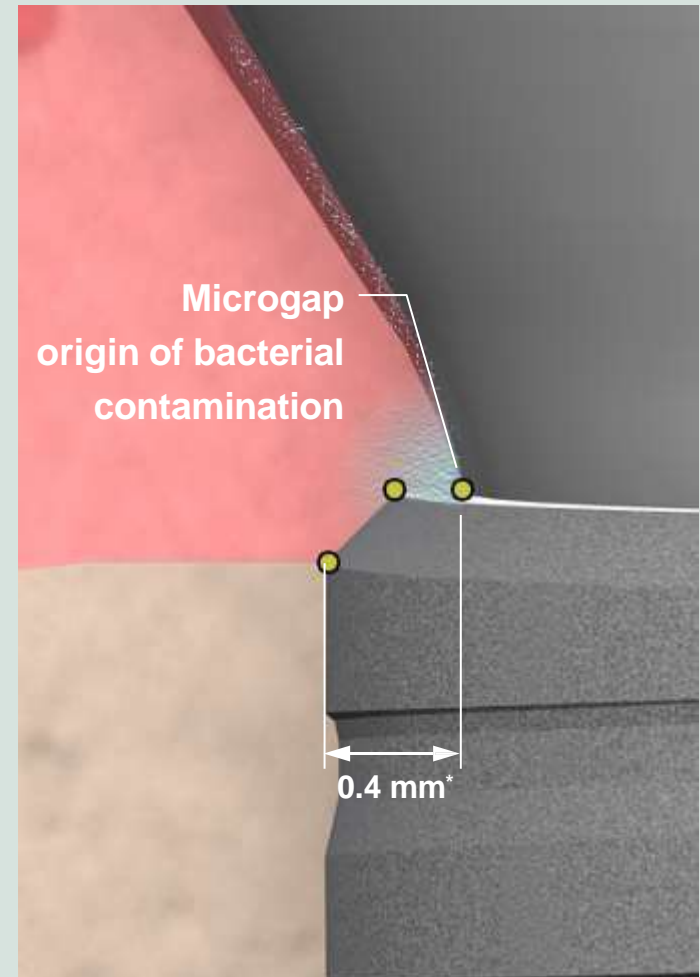
No gap can be measured for the Straumann CrossFit™ Connection



ANKYLOS® states: „Part of the system – Platform-Shifting®“

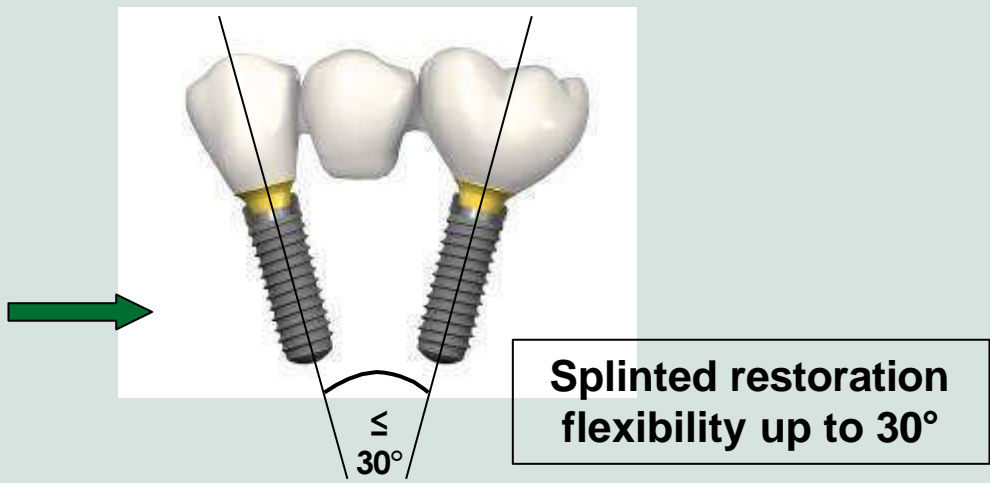
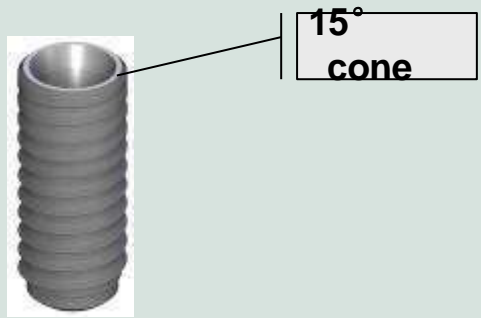
STMN answer:

With the Straumann CrossFit™ Connection the biological distance is respected.

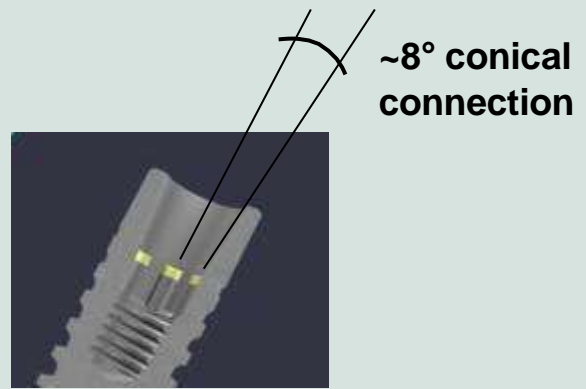


Straumann® CrossFit™ Connection offers superior flexibility

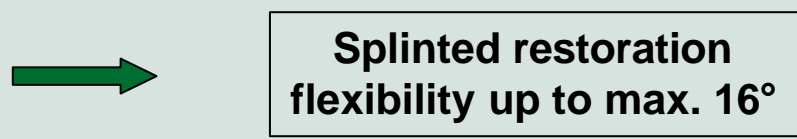
Straumann® Bone Level



Ankylos



Ankylos offers only half of the STMN flexibility



Connection: ANKYLOS® TissueCare Connection

Ankylos' statements:

One connection for all implant diameters

Superior stability – no micromovement

Extremely tight – no microgap

Part of the system – Platform-Shifting®

STMN answers in summary:

NC and RC Connection to exploit full strength potential with larger implants

In terms of stability the CrossFit™ Connection set the benchmark for bone level implant abutment connections

CrossFit™: No microgap measurable

With the CrossFit™ Connection the biological distance is respected

Moreover - for splinted restorations

- Straumann® CrossFit™ Connection allows 30° implant divergence
- Ankylos allows divergences of up to only 16°

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要下载或阅读全文，请访问：<https://d.book118.com/976143043125010035>