white SKY
IMPLANT SYSTEM

whiteSKY Manual

Temporary restoration, impression and model fabrication

2. Edition

bredent medical

The expectations and wishes of patients placed on dental treatment have greatly increased in the last few years. They expect therapeutic concepts to be adapted to meet their needs, which will enable them to lead an active and fulfilled life.

A lot can be achieved here, especially with implants! It is important, however, to understand the exact requirements of the patients and to address these – also during dental advisory consultations.

...gapless... Aesthetic restoration

Patients with good residual dentition, for whom the implant restorations are used to close gaps when there is loss of a single tooth or edentulous spaces.

...tempting... Stable teeth: immediately!

Patients who are about to lose their teeth and who feel too young to wear dentures, whether implant-supported or not.

You will now be able to satisfy your patients with special requirements, regarding aesthetics or a metal-free restoration, with whiteSKY - a tried and tested implant system for the past 5 years - which can be used in particular in ...gapless ... patients.

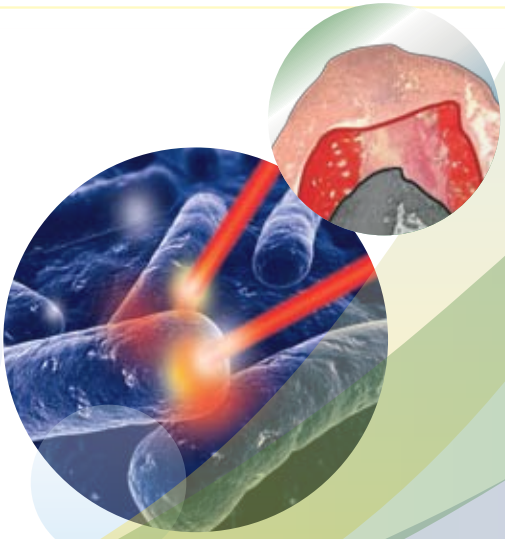
Show your patients how they can enjoy life again to the full with the therapy concepts from the bredent group.

...in the thick of it... Quality of life in old age

Edentulous patients with ill-fitting dentures, who have often resigned themselves to their supposed fate, are given a new quality of life with an implant-supported restoration – either an economic hybrid prosthesis or an expensive removable bridge.

Navigated implantation

The SKYplanX 3D planning system offers new opportunities for carrying out perfect planning on the PC and then transferring the results reliably and accurately into clinical practice.



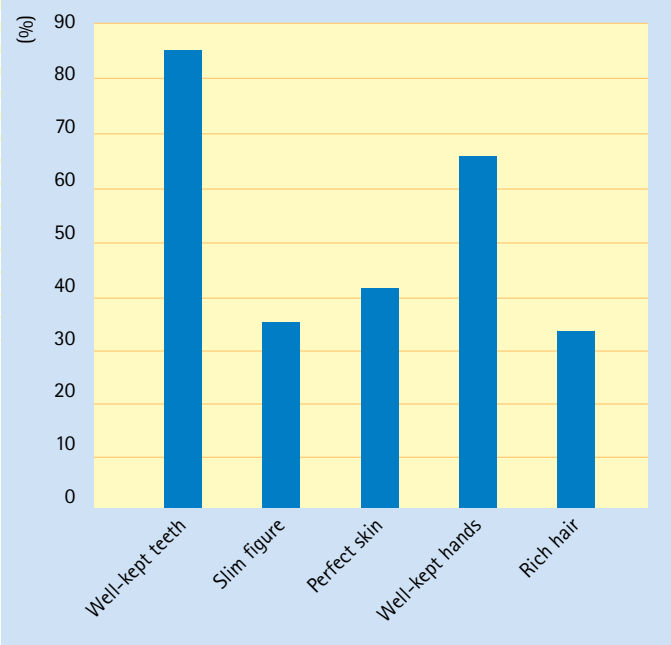
Regeneration

Successful implantology begins with the careful extraction of the teeth and the augmentation of the bone:

- materials for bone stabilisation
- materials for repairing damaged bone
- therapeutic concepts for controlling inflammation

whiteSKY – why?

What is most important for persons during first contact?



A recent survey documents the significance of the teeth for the appearance of a person and his social acceptance. Source: Emnid

Frequently a dark shadow in the gingiva can not be avoided for the use of titanium implants.

Patients demand esthetics

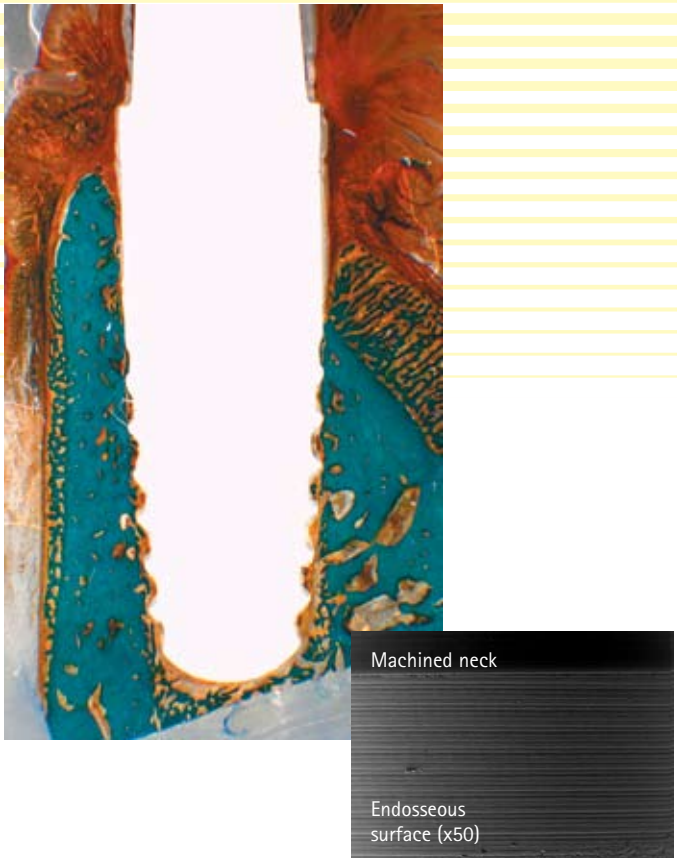
Along with the acceptance of implant restorations as the best solution to replace lost teeth and the growing use of implant placement, the requirements of the patients on esthetics have increased. The attitude towards the dentist is gradually changing in the awareness of patients. The idea of a place where aching teeth are repaired is fading and gradually replaced by the dentist's role as a health manager who has also a significant influence on the appearance and the well-being.

whiteSKY zirconium implants offer predictable esthetic results

In this context the whiteSKY zirconium implant provides new possibilities to offer demanding patients high-quality and, above all, esthetic dental restorations. No dark shades will affect the appearance of the restoration, even in cases of extremely thin gingiva.

Since zirconium does not have any metallic properties, whiteSKY is also the perfect solution for patients with sensitivity to metals.

Long-term success thanks to perfect soft tissue seal



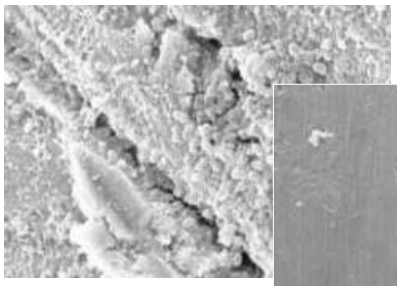
Long-term success thanks to perfect soft tissue seal

The results obtained with the Tübingen implant more than 20 years ago already showed that the soft tissue attaches perfectly to ceramic implants so that there is only a minimal risk of periimplantitis since the risk of penetration of pathogenic bacteria to the bone level can almost be eliminated.

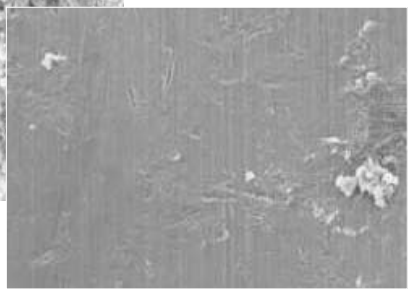
A study in minipigs at the University of Dresden confirmed these positive results also for the whiteSKY zirconium implants. The histology clearly shows the apposition of epithelial cells to the implant neck, which results in highly efficient long-term protection of the implant.

The horizontal grooves in the neck area provide efficient support for the apposition of the soft tissue.

Titanium



Zirconium



Long-term success thanks to considerably reduced plaque accumulation[1)]

A study by et. al. documents very clearly that the accumulation of plaque on zirconium surfaces is considerably lower than that on titanium surfaces under identical conditions. It can be concluded that that the lower number of potential pathogenic bacteria in the biofilm result in further reduction of the risk of periimplantitis.

During the insertion

After 1 year

Long-term success in the practice

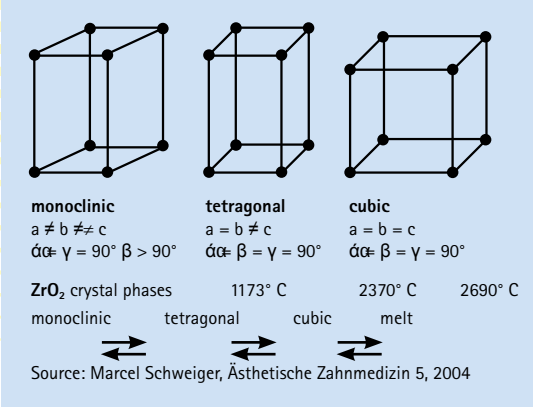
The clinical results obtained with the whiteSKY zirconium implant confirm the expectations for long-term success raised by clinical research. The gingiva level remains unchanged over an extended period.

Photos: Yvonne Kilanowski, Cologne

1) Literatur: Scarano A, Piattelli M, Caputi S, Favero GA, Piattelli A: Bacterial adhesion on c.p. titanium and zirconium oxide disks: An in vivo human study. J. Periodontol February 2004; Vol. 75, No. 2, 276-280

Zirconium oxide – the ideal implant material

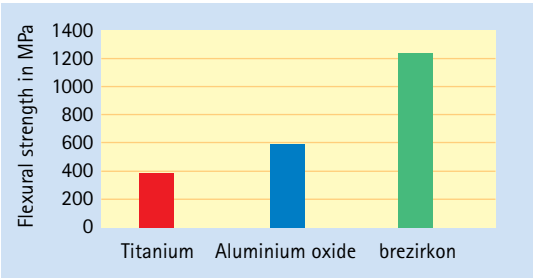
Structure of brezirkon



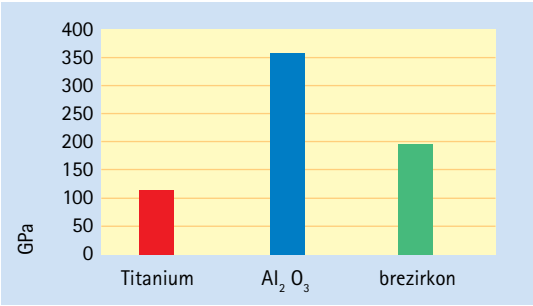
Source: Marcel Schweiger, Ästhetische Zahnmedizin 5, 2004

Mechanical properties of implant materials

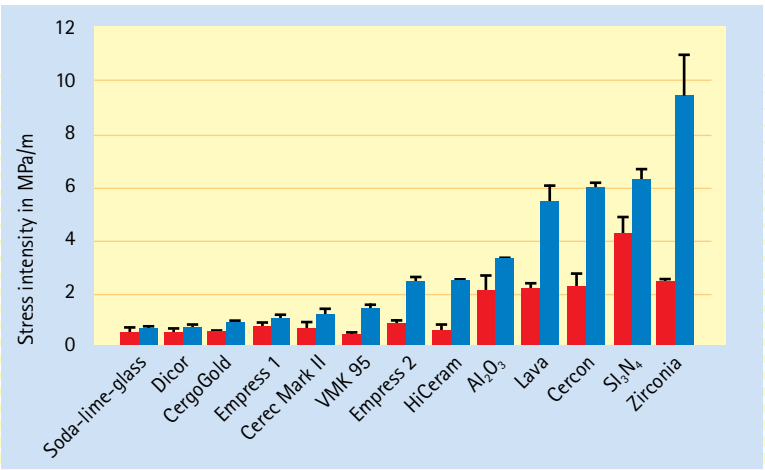
Strength



Elasticity



Fracture toughness



All zirconium oxides used in dentistry exhibit the same tetragonal structure since it meets the requirements of the stomatognathic systems in the best possible way. In nature this structure is only found at temperatures between 1173° C and 2370° C; the structure at room temperature is stabilized by adding yttrium.

Strength three times higher than that of titanium

In the unground condition, the strength of brezirkon is three times higher than that of titanium and two times higher than that of aluminium oxide. The fracture toughness is even increased by industrial grinding so that approx. 2000 N can be reached for the implants.

Ideal elasticity

brezirkon also features excellent elastic properties, i.e. it is less brittle than aluminium oxide and hence less susceptible to fracture and has a higher stability than titanium and therefore deforms less easily.

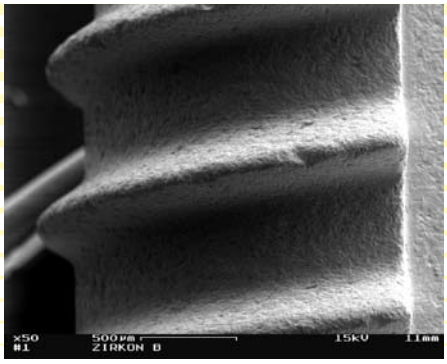
Long-term resistance to fracture

Moreover brezirkon features some type of integrated defect blocker, i.e. in cases of microfractures the fracture is stabilized by the phase transformation from the tetragonal to the monoclinic structure and propagation is avoided.

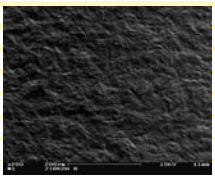
To sum up, it can be stated that zirconium is an ideal implant material.

Surface design and osseointegration

whiteSKY surface



Microstructure in the µm range for rapid bone adaptation

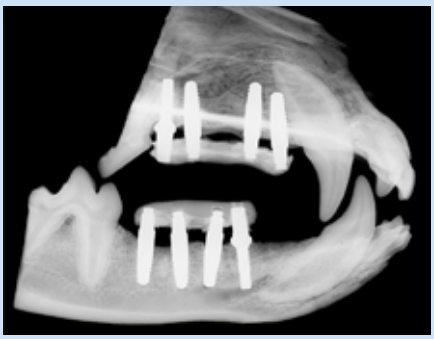


R_a: 0.9 - 1.0 µm
R_t: 7.0 - 7.2 µm
R_z: 6.05 - 6.15

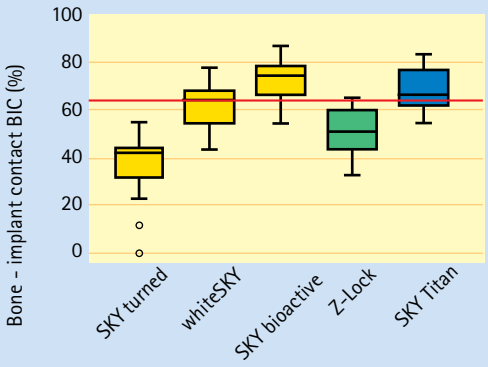
Scientific dental literature points out that rough surfaces are required for osseointegration to facilitate the apposition of osteoblasts.

Based on these scientific results the whiteSKY surface was sandblasted to achieve a defined level of roughness.

Evaluation of various ceramic implants after immediate loading



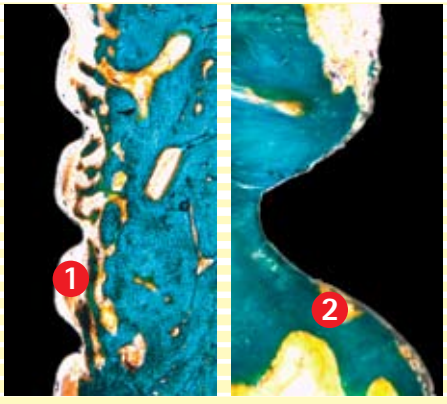
Histomorphometry



Poster, AO-Meeting 2007 [1]
Dr. Jörg Neugebauer

Osseointegration of zirconium and titanium surface

A study in dogs carried out at the Universities of Cologne and Belgrade showed that bone-implant contact of the sandblasted whiteSKY zirconium implants is on the same level as that of the sandblasted SKY titanium implants. Then again the level was significantly above that of turned titanium implants and of a competitor's zirconium implant.

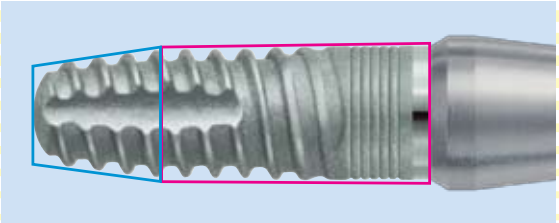


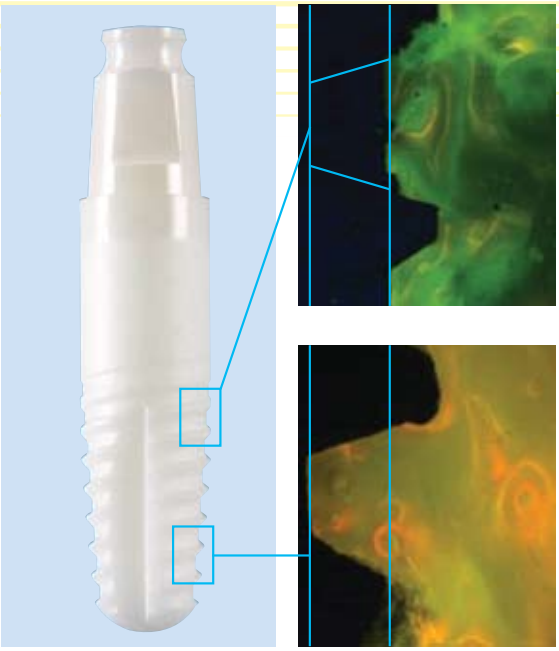
University of Dresden Dr. Mai [2]

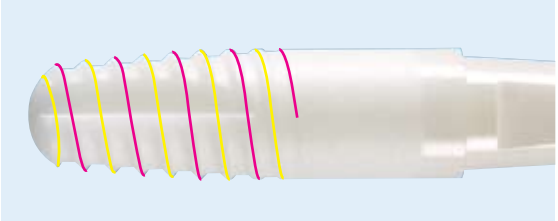
A study in minipigs at the University of Dresden showed excellent results with regard to osseointegration of the whiteSKY zirconium implant. The regenerated bone can be clearly recognized 1 as the direct apposition of osteoblasts 2 on the surface.

1) Dr. Jörg Neugebauer et al.: Immediate Loading of Ceramic Implants with Various Surfaces and Designs; Academy of Osseointegration 2007, San Antonio
2) Dr. Ronald Mai et al.: Study in minipigs with whiteSKY implants - not yet published.

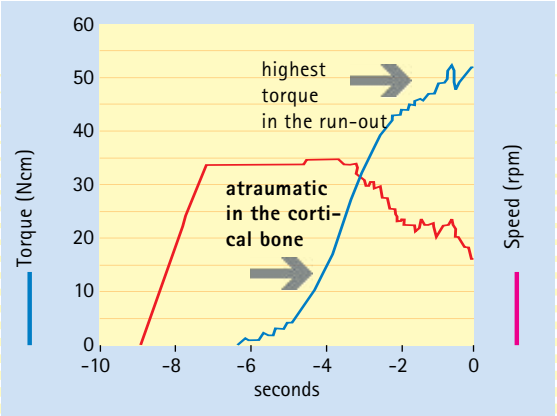
Primary stability through the implant design







Torque curve – screwing in the implant



Curves measured with KaVo INTRAsurg 1000 in bovine rib with whiteSKY 4.0 x 12 mm.

Since whiteSKY is a one-phase implant, it is essential to insert the implant with sufficient primary stability of at least 20 Ncm to ensure osseointegration. Then again a value of 45 Ncm should not be exceeded to protect the bone.

The implant design is based on the successful SKY titanium implant and features a combination of a cylindrical and conical inner and outer geometry to achieve highest possible primary stability.

Moreover the compression thread leads to increased primary stability.

The double thread allows quicker insertion of the implant and reduces the stress to the bone and the patient. As the torque curve shows (see fig.), a continuous torque curve is obtained when inserting the whiteSKY implants.

Tips of users:
If you notice that the desired maximum torque has been exceeded when inserting the implant, the implant should be removed again and the cavity should be carefully widened using the XL-drill.

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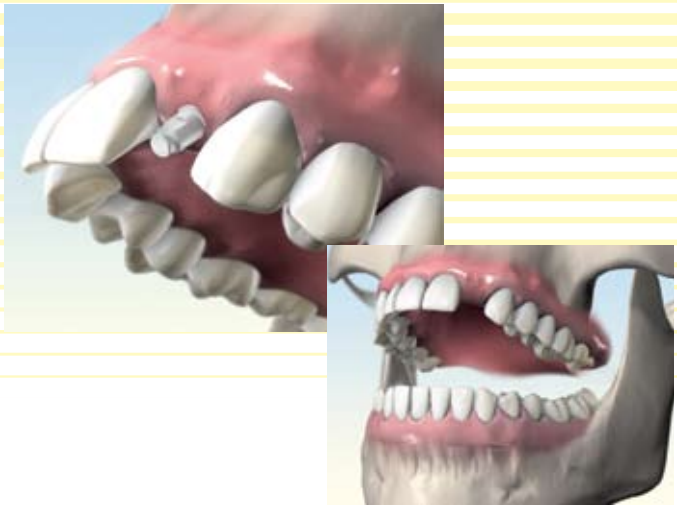
Indications



Since the whiteSKY zirconium implant is a one-piece implant, particular attention must be paid to the healing phase.

Therefore we recommend to place the implant in situations in which safe healing is ensured by the adjacent teeth. The implant should not be subjected to functional loading during the healing phase.

Generally, two-stage procedures should be chosen for augmentation techniques in conjunction with whiteSKY implants.

In large gaps each missing tooth should be replaced with a whiteSKY zirconium implant to avoid excessive loading of the implants.

Photos: Dr. Siewert, Clinica Somosaguas, Madrid

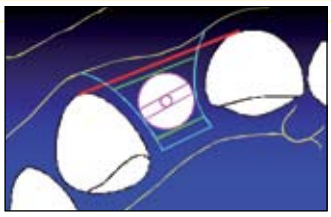
In free-end situations, there is the possibility to create a block using miniSKY implants and the natural tooth, so that whiteSKY implants can be protected from undesired strong loading. It is not necessary to make a bridge.

In the edentulous jaw there have been several reports in the meantime from users who have successfully restored patients with immediate blocking of the implants. It is important, however, that the blocking remains tension-free.

Treatment planning

Result of implant placement beyond the esthetic border line

Optimal position



Esthetic border line

Optimal line ensures sufficient vestibular hard and soft tissue - the basis for the esthetic appearance

Positioning

Owing to the one-piece design, careful preoperative planning is also essential for the whiteSKY implant since there are only limited possibilities of customizing the implant with its integrated abutment. In this context we would like to refer to a publication by PD Dr. Gomez Roman who suggests the following parameters to obtain the perfect space for esthetic implant positioning:

- the rim of the implant should be approx. 1 mm behind the tangent of the adjacent teeth to achieve a perfect esthetic result
- the esthetic border line is on the tangent. The implant should not be placed further to the vestibular region.

Esthetic incision

Careful incision retains a minimal width of 1 mm of the interdental papillae and ensures perfect esthetics of the gingiva.

Clinical result: 9 months after insertion.

Incision

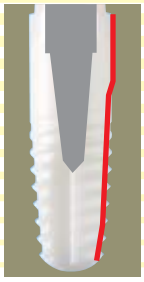
The papillae have a decisive influence on the overall esthetic impression, i.e. when carrying out the incision, the papillae must be protected.

If these aspects are observed, predictable esthetic results can be achieved with the whiteSKY zirconium implant since no dark shadows will affect the result and natural translucency of the restoration.

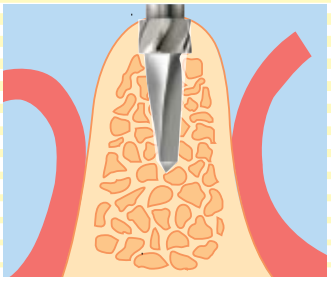
Tips of users:
For covered implants, the use of a 5 mm punch is recommended to be able to check the bone margin around the implant.

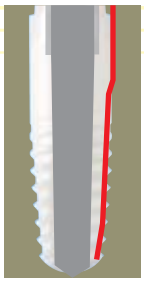
German Gomez Roman: Flap Methods and Implant Positioning. Surgical Recommendations for the Single Tooth Gap Z Zahnärztl Impl 2003;19(4)

Bone quality-oriented drill design

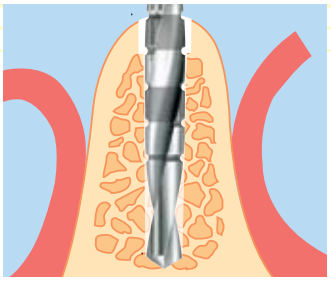


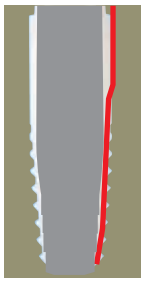
Pilot drill



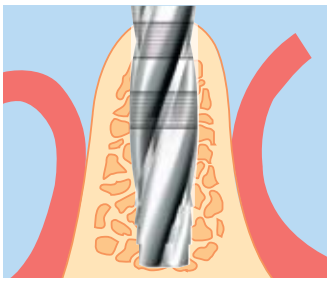


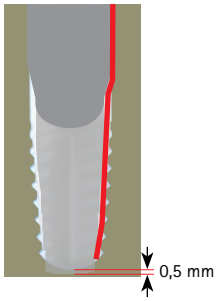
Twist drill



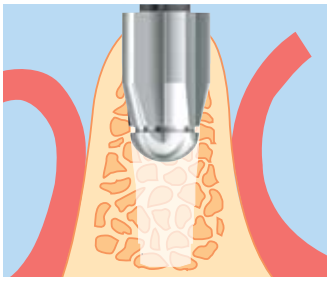


Final drill





Crestal drill



The drill design supports the attainment of a high primary stability in the soft and medium-hard bone (D2 – D4) by compression.

In hard bone (D1), atraumatic thread tapping provides a load-free insertion of the implant.

The surgical protocol is designed such that quick and safe preparation of the implant cavity is ensured with a minimum of drilling.

Pilot drill:
Using the conical tip of the pilot drill, it can be ensured that the drill does not slip even in hard bone and the implant position can be precisely marked. At the same time, the cortical bone can be prepared to 3 mm, so that the cutting performance of subsequent drills can be spared.

Twist drill 2.25:
The direction and depth of the implant cavity are determined with the twist drill.

Final drill:
The central core of the implant cavity is prepared with the final drill, according to the quality of the bone. The implant diameter is used in ascending order.

Crestal drill:
Using the crestal drill, the implant cavity is prepared coronal to the width of the implant platform, so that no tension builds up in the cortical bone which could lead to bone degeneration.

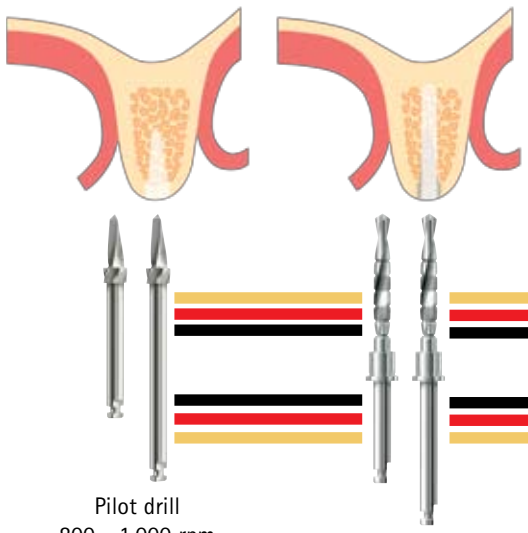
Bone quality-oriented drill design
In order to achieve optimum primary stability, it is necessary to orient the surgical protocol according to the bone quality. We gear this to the customary definition of bone quality found in the scientific literature (Lekhom & Zarb 1985):

- D1: almost exclusively homogenous compact bone
- D2: wide compact bone and finely meshed cancellous bone
- D3: thin compact bone and finely meshed cancellous bone
- D4: thin compact bone and widely meshed cancellous bone

Surgical protocol

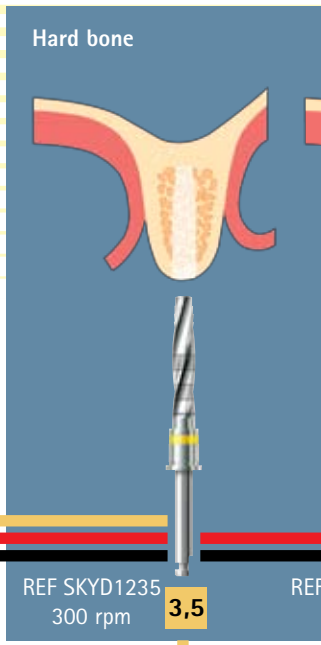
New:

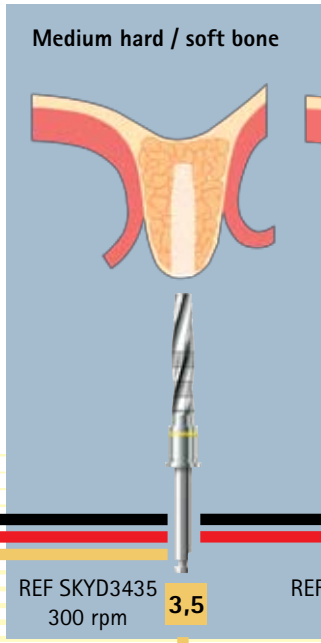
- optimized, bone quality-oriented set of instruments and surgical protocol for unsurpassed primary stability
- Drills with detachable drill stops
- Reduction of the number of drills for increased control and dependability during surgery



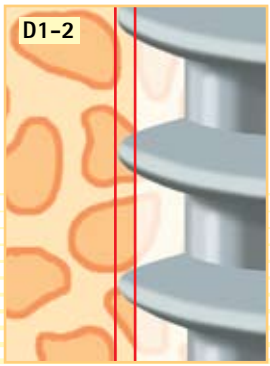
Pilot drill
800 - 1.000 rpm

Twist-Drill
800 - 1.000 rpm

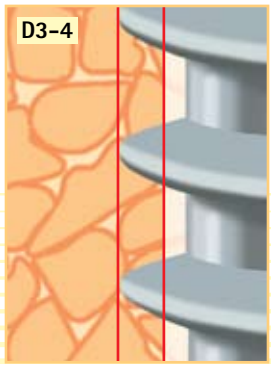




Bone quality-oriented surgical protocol



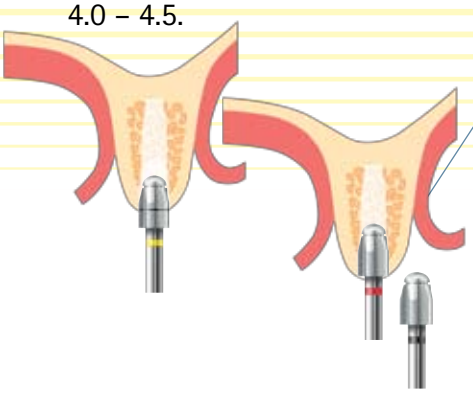
Atraumatic tapping thanks to reduced contact area

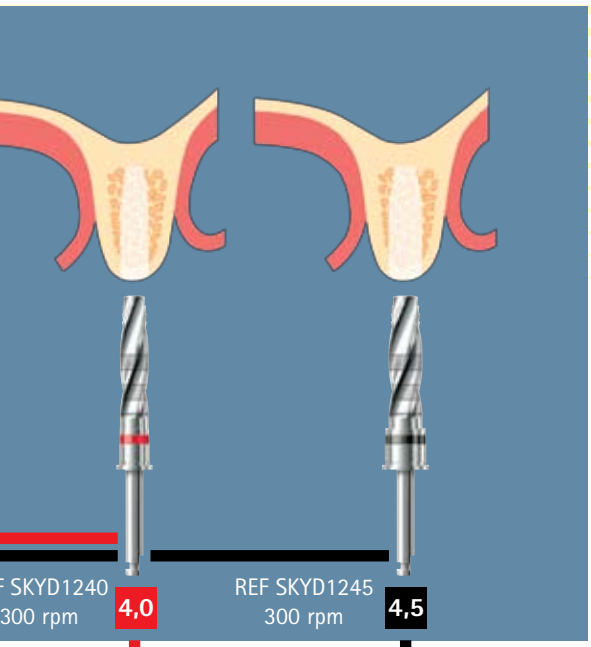


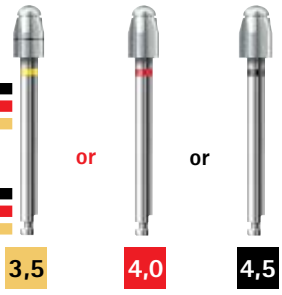
Apical compression thanks to increased contact area

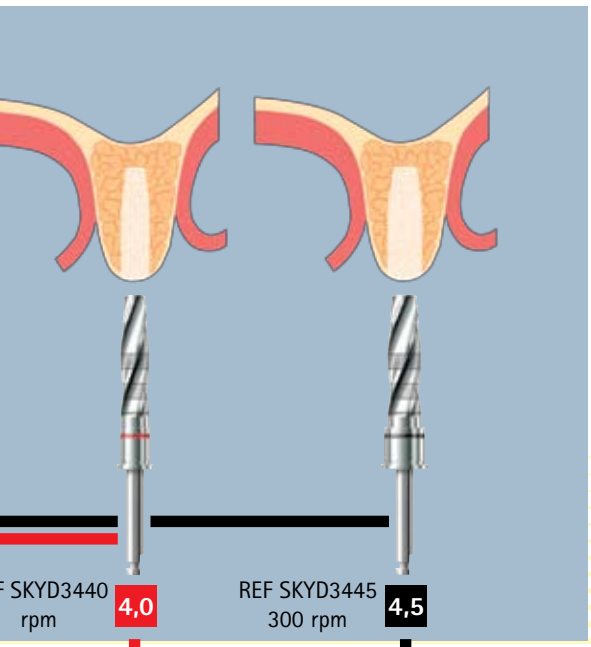
Consistently high primary stability

When using the implants with the diameter of 3.5 mm, it is sufficient to lower the crestal drill only up to the marking, whereas the crestal drill needs to be lowered completely when using the implants with diameters of 4.0 – 4.5.

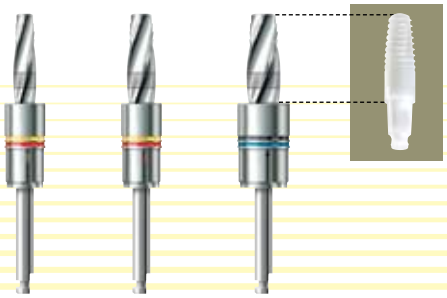








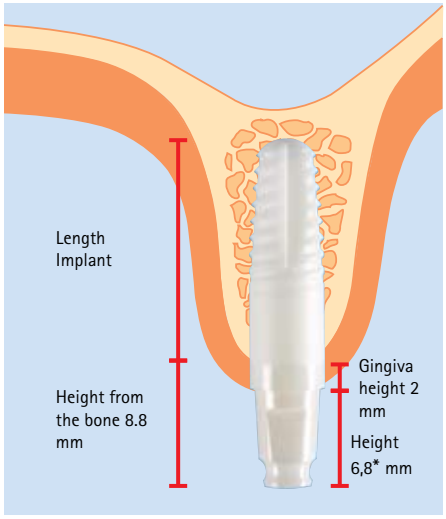
Detachable drill stops



Surgical procedure

Screwing in the implant

- maximum torque: 45 Ncm
- A speed of 30 rpm should not be exceeded for mechanical screwing in.



* The height of the initial production batches was 5.3 mm.

When inserting the whiteSKY zirconium implant, bredent medical generally recommends to use a torque limit, i.e. to work with torque ratchet or a torque-controlled motor and contra-angle.

The minimum torque should not be less than 30 Ncm; if this value can not be reached, e.g. owing to poor bone quality, a two-piece titanium implant should be placed, especially if no adequate protection of the implant against functional loading can be provided.

The maximum torque should not exceed 40 Ncm. We would like to point out that the torque is normally exceeded when the torque check is activated.

The implant should be lowered into the bone up to the end of the sandblasted section. The length from the cervical rim to the end of the sandblasted surface corresponds to the indicated implant length.

In the gingival region the whiteSKY zirconium implant features a machined neck with a height of 2 mm.

The abutment height is 6.8 mm and can be customized. *

Tips of users:
If the recommended torque is reached too soon, it is recommended to remove the implant again and to use the XL-drill to prepare the cavity to avoid excessive stress to the bone.

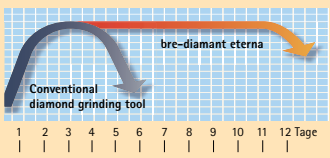
The whiteSKY zirconium implant can be customized by grinding immediately after the insertion.

The following aspects should be considered for the design in the upper section of the whiteSKY zirconium implant:

- the height should not be reduced by more than 1.5 mm
- generally, the abutment height should be approx. 1/3 of the definitive crown height
- the diameter should not be reduced to more than 50 %
- avoid undercuts, edges or burrs

The following aspects must be observed when grinding the whiteSKY zirconium implant:

- sufficient cooling with water is required (at least 50 ml/min
- use coarse diamond (blue) for initial preparation
- always finish with fine diamonds (red) to smoothen any microfractures



The whiteSKY set for grinding comprises a range of ETERNA grinding tools which feature double diamond coating. They excel by high stability and are particularly suited for grinding zirconium.

Shapes:	Diamond coating	
	120 µm	40 µm
Torpedo 290	E 290 NF 14	E 290 FF 14
Bud 277	E 290 NF 14	E 290 FF 14
Conical torpedo 298	E 290 NF 14	E 290 FF 14

Provisional restoration

According to our observations, there are two methods for provisional restoration with the whiteSKY implant.

- Users of method 1 prefer a splint and temporary restorations on the adjacent teeth to ensure complete absence of loading during the healing phase

- Users of method 2 intend to achieve safe healing without masticatory stress by adhering to the principles of immediate loading and by preparing a suitable design of crowns

Splint therapy:

- the splint must be designed in a way to avoid any contact with the implant even under stress
- the patient needs to wear the splint day and night since even pressure by the tongue or the cheek may result in disfunction

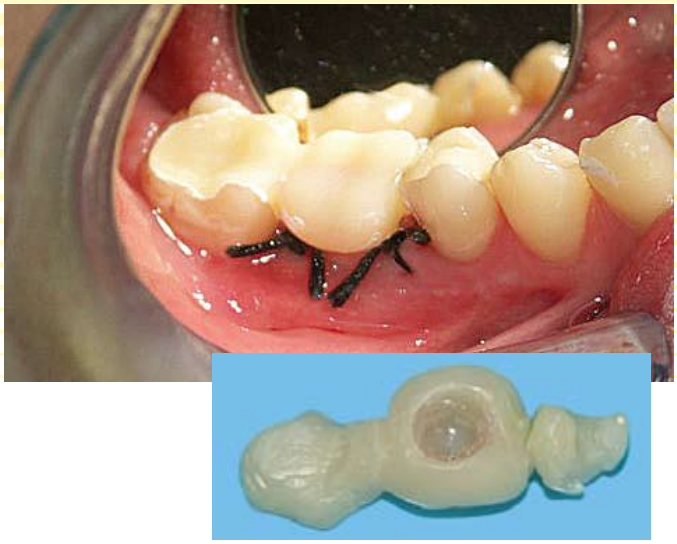
Since patients frequently find splints unpleasant to wear, they might frequently refuse to wear them so that there is the risk of integration with connective tissue.

Consequently, the following procedure is recommended by bredent medical:

- Protection by a splint over 6-8 weeks
- Wearing a temporary implant-supported restoration for the following three months
- Preparation of the definitive restoration after this period

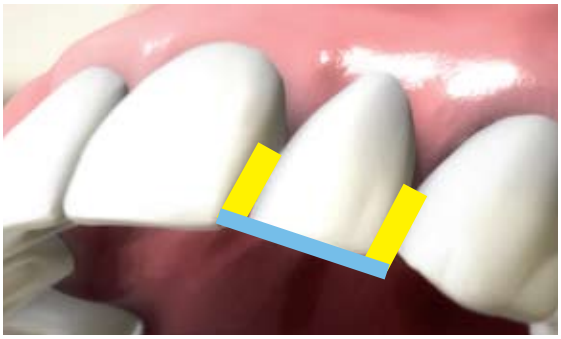
Photos: Dr. Igor Borrmann, Kornwestheim

Provisional restoration



Bridge supported by adjacent teeth

If the adjacent teeth have already been restored with fillings, these teeth can be used to integrate a Maryland bridge. Make sure that there is no contact between the restoration and the implant (even under stress).



Wide contact surfaces towards the adjacent teeth

Crowns in the non-occlusion area - even under load/stress

Non-functional immediate loading

In cases of non-functional immediate loading, two-stage procedures should be chosen for any necessary augmentation techniques.

The following aspects should be observed for the design of the temporary crowns:

- volume of the crown much smaller than that of natural teeth
- wide contact surfaces of crowns and bridges towards the adjacent teeth, protect the restoration againt excessive loading
- crowns in the non-occlusion area – even under load/stress
- additional stabilization of the restoration with PE ribbon. Some users always do that, others only if necessary

Photos: Yvonne Kilanowski, Cologne

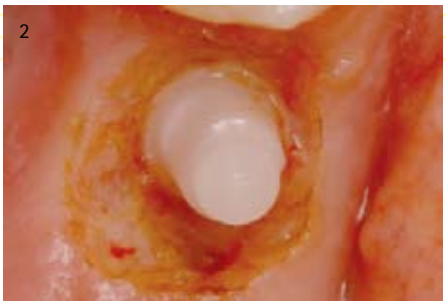
Tips of users:
To check the osseointegration of the implants, do not tap vertically on the implant but horizontally and hold your finger behind it.

Prosthetic concept – temporary restoration

An excellent level of soft tissue apposition to the whiteSKY zirconium implant is provided. As a result, the soft tissue also adapts easily to the abutment above the preparation border unless an immediate temporary restoration has been placed on the whiteSKY zirconium implant during the healing phase, e.g. the implant is only protected with a splint. The level of soft tissue apposition is so high that the gingiva can only be removed using an electrotome which retards the healing process and may affect the esthetic result.

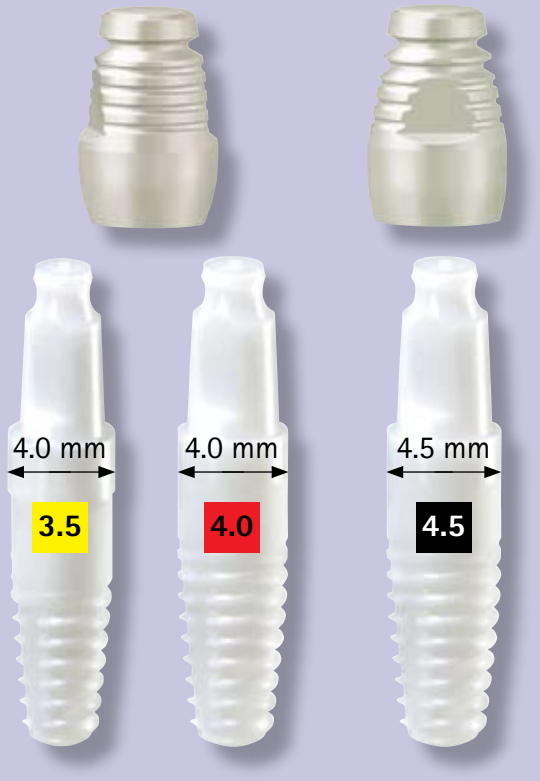
Best clinical results are achieved with the one-phase whiteSKY implants if they are used in the same way as immediate titanium implant restorations:
- Highly precise presurgical planning
- Sufficient bone quantity
- Two-stage augmentation procedures
- Primary stability of 30 to 45 Ncm

The following aspects need to be considered for the temporary restoration:
- Large contact surfaces with adjacent teeth
- No occlusion contact points even under stress
- Connecting with adjacent teeth, e.g. using the acid etching technique



Dr. Siewert, Madrid

whiteSKY prosthetic coping



The new whiteSKY prosthetic caps are available in two diameters - one for the whiteSKY implants 3.5 and 4.0 mm and one for the implant diameter of 4.5 mm.

Two flat portions serve to protect the temporary restoration against rotation. The grooves facilitate mechanical fixation of the temporary restoration, which can be fabricated easily and quickly in situ using veneers conditioned with visio.temp.

Fabrication of the temporary restoration

Place the prosthetic cap on the implant and check the position.
The use of visio.temp veneers allows the quick fabrication of a temporary restoration in situ.

Cement the temporary restoration on the whiteSKY implant. If required, fix the crown at the adjacent teeth using the acid etching technique. Check the occlusion - crown must be out of occlusion even if it is loaded.

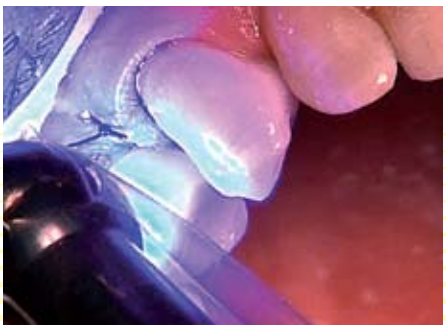
Photos: Dr. Elke Oberbeck, Dannstadt

Clinical case – provisional restoration

The undercut at the whiteSKY abutment is filled and then the crown is built up using composite.

The crown is removed and finished. After the integration, the surface of the adjacent teeth is etched to condition them for the adaptation of the PE ribbon.

In the meantime the length and the width of the PE ribbon are adjusted. Then the etching gel is rinsed off.



The universal bonding material is applied and activated with UV light.

Photos: Dr. Bernd Siewert, Madrid

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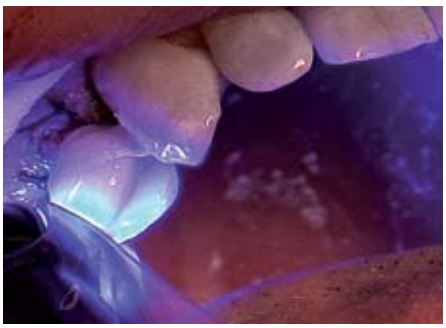
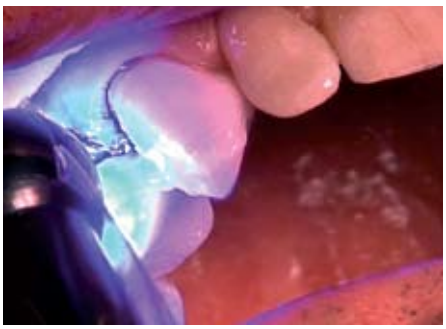
Clinical case – provisional restoration

A thin coat of a flowable composite is applied to the surface of the adjacent teeth and the crown. Then the PE ribbon is applied.



The PE ribbon is adapted to the surface with a wide instrument and fixed with UV light.



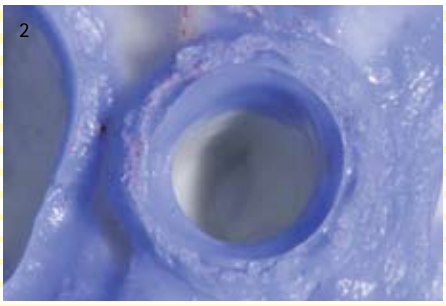
Then the PE ribbon is covered with Komposit-Flow and polymerized with UV light.

Then the occlusion needs to be checked again to ensure that osseointegration of the implant will not be affected by any contacts.

Photos: Dr. Bernd Siewert, Madrid

Impression and model fabrication

If the circumferential and cervical areas of the whiteSKY implant were ground for esthetic reasons, the impression is taken in the same way as for natural teeth. Generally, we recommend a double-mix impresson to obtain a perfect impression of the soft tissue.

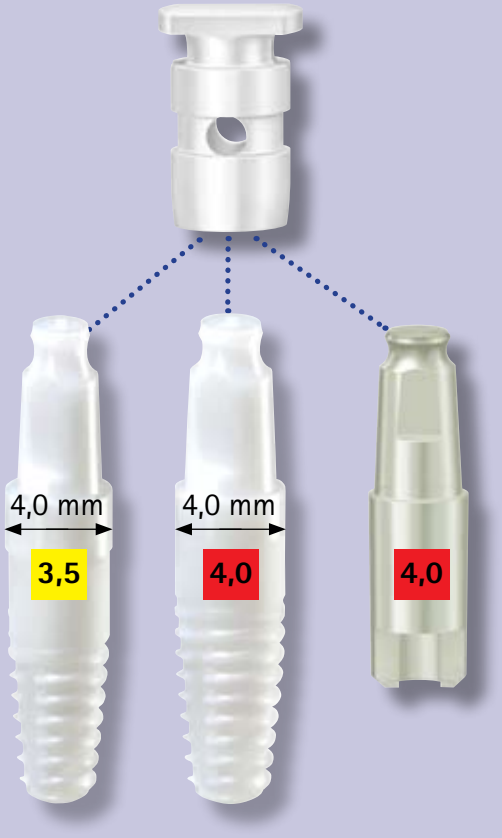


If the preparation border is not ground, there is the possibility to work with suitably fitting impression caps and laboratory analogues. This is advantageous, if CAT/CAM work is to be fabricated.

Impression caps and laboratory analogues are also simple to use in coronal ground implants without a problem, as the laboratory analogues can be individualized per crown.

Photos: Dr. Bernd Siewert, Madrid

whiteSKY prosthetic coping



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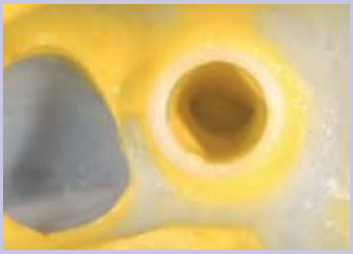


Impression and model fabrication

Impresion – whiteSKY

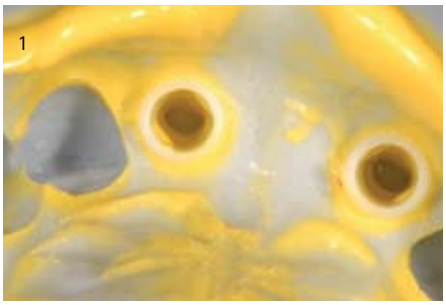
- Inject a soft impression material into the impression cap – brecision implant light
- Press the impression cap firmly onto the implant
- Inject soft impression material the impression cap and the implant
- Take the impression


1


2

Model fabrication – unground whiteSKY implants

- Reposition laboratory analog in the impression cap
- Pour dental stone e.g. Thixo-Rock into the model
- Use soft gingival mask, such as Multisil-Mask soft


1

Model fabrication – ground whiteSKY implants

- Implant was ground from the vestibular direction
- The whiteSKY laboratory analog is individualized with diamond tools – preferably chairside by the dentist
- Check individualization in the impression
- Fill individualized analog with composite
- Reposition laboratory analog in the impression
- Apply more composite material through the canal in the laboratory analog
- The analog is polymerized for 15 sec
- Check subsequently, place the analog back and fabricate the model
- Dental stone, e.g. Thixo-Rock is used for pouring the model
- Use soft gingiva mask, e.g. Multisil-Mask soft


1


2


3


4


5

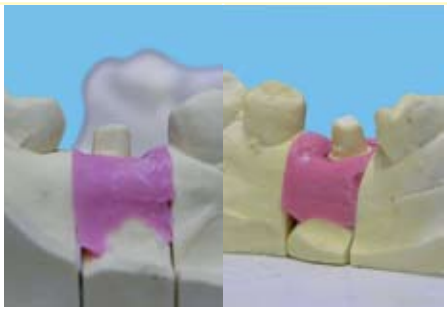
Photos: Dr. Bernd Siewert, Madrid

Definitive restoration with zirconium crown

Definitive restoration

An all-ceramic crown with zirconium coping represents the perfect esthetic solution. This type of restoration is also recommended for material-technical reasons since the use of different materials is avoided.

A sawcut model and a plaster impression of the implant can also be prepared for vertically positioned whiteSKY zirconium implants. If implants are too strongly angulated, note that the plaster die may break off when removing the impression from the mould, due to the flexural stress.



Definitive restoration

Quick and reliable modelling of the zirconium coping is ensured with compoForm UV, which is a light-curing composite for modelling and exhibits outstanding processing characteristics.

Modelling the zirconium copings

Depending on the CAD/CAM system, the zirconium coping is scanned subsequently or copy milled in the respective system.

Laboratory photos: MDT Bernhard Lehmann, Cologne
Clinical photos: Yvonne Kilanowski, Cologne

Definitive restoration with zirconium crown

Try-in of the zirconium coping

After try-in of the zirconium coping in the mouth of the patient, the crown is veneered and inserted as a definitive restoration.

The veneered all-ceramic crowns

Long-term clinical success

During the insertion

After 1 year

Laboratory photos: MDT Bernhard Lehmann, Cologne
Clinical photos: Yvonne Kilanowski, Cologne

Scientific Publications on whiteSKY

Kohal et al.
The effects of cyclic loading and preparation on the fracture strength of zirconium-dioxide implants: an in vitro investigation
Clinical Oral Implants Research, accepted 5. August 2010

Alper Çaglar et al.
Evaluation of Stresses Occurring on Three Different Zirconia Dental Implants: Three-Dimensional Finite Element Analysis
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Edentulous jaws rehabilitation with yttrium-stabilized zirconium dioxide implants: two years follow-up experience
Minerva stomatologica, vol 59, 2010

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Single-tooth Zirconia Implant Located in Anterior Maxilla
NYSDJ – January 2010

Stadlinger B.
Comparison of Zirconia and Titanium implants after a short healing period. A pilot study in minipigs
International Journal of Oral & Maxillofacial Surgery, 2010, Vol. 39, Issue 6, pp 585-592

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Klinisches Vorgehen für den erfolgreichen Einsatz einteiliger Keramikimplantate
ZWR 2009, pp. 118-121

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implants, 4/2008 (Polen)

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Implantologie 2007; 15(4); pp. 405-414

Peter B.
Vollkeramische Rekonstruktion mit Zirkoniumoxid-Implantaten
Zahnarzt, Nr. 4, 13. Jahrgang

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Keramikiimplantate im kaufunktionellen Seitenzahngebiet – erstmalig nach 3.000 Jahren Zahnheilkunde: Zahnersatz metallfrei, festsitzend, biokompatibel
Dent. Implantol. 2007, 11, 5, pp. 344-353

Neugebauer J.
Konzeption und klinische Anwendung von einteiligen Zirkondioxid-Keramikimplantaten
ZMK (23) 11/07

Posterpräsentationen

15° Congresso Nazionale „Collegio die Docenti"
Roma 16-19 aprile 2008
Borgonovo et al.
Implantatgetragene, prothetische Versorgung auf Zirkondioxidimplantaten
(Titel übersetzt)

Academy of Ossointegration, Annual Meeting,
Boston, USA, February 28 – March 1, 2008
Scheer et al.
Osteogenic Differentiation of Mesenchymal Progenitor Cells From Human Teeth on Different Implant Surfaces in vitro

3. Remagener Physiktage RPT 2007 – Schwerpunkt Biomedizinische Technik
Remagen 7.-9. März 2007
Nolte B. et al.
Beurteilung verschiedener Keramik-Implantate nach Sofortbelastung

Academy of Ossointegration, Annual Meeting,
San Antonio, USA, March 8.-10., 2008
Neugebauer et al.
Sofortbelastung von Keramik-Implantaten mit verschiedenen Oberflächen und Designs
(Titel übersetzt)

Product survey

Ø	Length	REF
3,5 mm	10 mm	SKY3510C
	12 mm	SKY3512C
	14 mm	SKY3514C
	16 mm	SKY3516C

Ø	Length	REF
4 mm	8 mm	SKY4008C
	10 mm	SKY4010C
	12 mm	SKY4012C
	14 mm	SKY4014C
	16 mm	SKY4016C

Ø	Length	REF
4,5 mm	8 mm	SKY4508C
	10 mm	SKY4510C
	12 mm	SKY4512C
	14 mm	SKY4514C

OP-Tray

REF SKYXOT21

whiteSKY
Prosthetic cap
Ø 3,5 mm and 4,0 mm

REF SKYCPK40

Ø 4,5 mm

REF SKYCPK45

whiteSKY
Impression cap
Ø 3,5 mm and 4,0 mm

REF SKYCA40L

Ø 4,5 mm

REF SKYCA45L

whiteSKY
Laboratory analogue cap
Ø 3,5 mm and 4,0 mm

REF SKYCIA40

Ø 4,5 mm

REF SKYCIA45

whiteSKY
mounter for ratchet

REF SKYC-SM6

whiteSKY
mounter for contra-angle

REF SKYC-WM6

Impression taking

breciform impression tray
- single use, Set
10 pieces each, upper jaw/lower jaw
S, M, L, X
10 breciform D triangular stops
10 breciform D bar shaped stops

REF 580 UOTS S

Set for grinding
zirconium whiteSKY

REF 580 E006 C

brecision implant heavy
Impression material blue
1 x 380 ml
5 x dynamic mixers
1 x bayonet ring blue

REF 580 BH38 0

Thixo-Rock special
super-hard stone, class IV
brown-coloured, 2 kg

REF 570 0005 2

ivory-coloured, 2 kg

REF 570 00E5 2

grey-coloured, 2 kg

REF 570 00G5 2

brecision implant light
Impression material orange
2 x 50 ml
10 mixing cannulas yellow
10 Intra-Oral tips

REF 580 BL05 0

brecision putty soft
Kneadable base material
250 ml base (grey)
250 ml catalyst (white)
2 measuring spoons

REF 580 0002 4

breciform adhesive for A-silicones
10 ml

REF 580 0004 0

Internet

bredent medical in the internet

Since August 2006 bredent medical has had a new website in the internet. Clearly structured and easily understandable information on products and ordering for our entire product range is provided at www.bredent-medical.com.

As a special service we have integrated the „training" section with the possibility of direct registration.

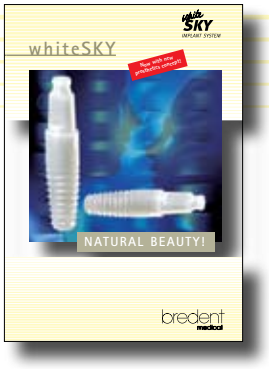
Interested dentists are enabled to inform themselves about the course/ workshop of their choice and can immediately register if they intend to participate in this training event.

In addition to the content, there is also a short introduction of the lecturers of our training seminars.

In the press section new products and therapies are presented and already published dental articles of renowned users of our products can be downloaded.

The „Information on ordering" section includes all the relevant information for placing orders. Currently, an online shop is being created.

Please request brochures with detailed information!

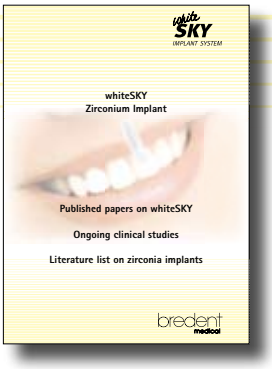


Brochure

REF 000 168 GB

Patient information

REF 000 421 GB



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Subject to changes 03/11 426 GB 2