Patient Information

Treatment of larger bone defects
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on

Over 10 million patients worldwide have been treated with Geistlich biomaterials. Let us share some facts with you about these products:

- Geistlich products are scientifically proven top quality Swiss biomaterials.
- Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.
- These natural biomaterials were evaluated in more than 1,400 studies from countries all over the world.
- The safety has been assessed by international and national regulatory bodies.

Why is a treatment beneficial?

Smile again
Aesthetically pleasing outcomes & maintenance of healthy teeth.

Restoring functionality
Predictable bone gain for long-term implant survival.

Stable outcomes
Less bone resorption & stable clinical outcomes.

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1 Implant placement is not possible due to insufficient bone width.
2 2 years post-operation: enough bone width maintained.

Prof. Dr. Istvan Urban (Budapest, Hungary)

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1 Implant placement is not possible due to insufficient bone height.
2 6 months post-operation: sufficient bone height maintained for stable implant placement.

Dr. Mauro Merli (Rimini, Italy)
What happens when there is not enough bone available?

Accidents, dental traumas or advanced periodontists are just some of many reasons for tooth loss followed by degradation of bone.

If the treatment is delayed for too long...
› the height and/or thickness of the jaw bone diminishes.
› there is insufficient amount of bone for implant placement.

Sufficient bone is essential to ensure the long-term stability of your dental implants.

How can these bone defects be treated?

There are two clinical situations that can occur:

Insufficient width of the bone wall

Large bone defects where one bone wall is maintained can be restored... ...by using autologous bone blocks in combination with Geistlich Bio-Oss® and a Geistlich Bio-Gide® membrane.

Insufficient height of the bone wall

Large bone defects where the bone walls are completely diminished can be restored... ...by using a form-stable membrane, Geistlich Bio-Oss® and autologous bone chips to reshape the bone walls. A Geistlich Bio-Gide® membrane is used to support soft tissue healing.
Geistlich Biomaterials

Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body's own tissue regeneration process effectively.

**Geistlich Bio-Oss® promotes effective bone regeneration**

› Providing a foundation for your body to regenerate bone.
› Made from the mineral part of the bones originating from cattle.
› Swiss quality, refined through 30 years of experience.

**Geistlich Bio-Gide® protects & supports wound healing**

› Supports wound healing and provides a barrier for optimum regeneration of bone.
› Made of collagen obtained from healthy pigs.
› Swiss quality, refined through 20 years of experience.

Bone regeneration in larger bone defects require some form of grafting in order to restore volume, stability and ultimately regenerate bone.
Post-operative care is an area where you can contribute to the success of your procedure.

**Do’s**
- Maintain your oral hygiene and use antibacterial mouthwash as prescribed by your dentist.
- Treat swelling with moistcold pads.
- Consult your dentist regarding pain.
- Make sure that you visit your dentist for a follow-up appointment.

**Dont’s**
- Do not neglect your oral hygiene.
- Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
- Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
- Avoid chewing of hard food.
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world.1-20

More than 15 million
Geistlich Bio-Oss®

More than 6.5 million
Geistlich Bio-Gide®

More than 200,000
Geistlich Mucograft®

More than 15,000
Geistlich Fibro-Gide®

Referenzen
1. Millennium Research Group, Dental Biomaterials North America, 2018 (Market research).
2. Millennium Research Group, Dental Biomaterials Europe, 2016 (Market research).
3. ISO 13485 certificate, design & development.
4. ISO 9001 certificate, distribution.
8. Mordenfeld A et al., Clin Oral Implants Res. 2010 Sep;21(9):961-70. (Clinical study)
17. Degidi M et al., Clin Implant Dent Relat Res. 2009 Sep;11(3):178-82. (Clinical study)
20. Based on the number of units currently sold. Data on file (Wolhusen, Switzerland)
Patient Information

When implants become visible
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on

Over 10 million patients worldwide have been treated with Geistlich biomaterials. Let us share some facts with you about these products:

› Geistlich products are scientifically proven top quality Swiss biomaterials.
› Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.

Geistlich Biomaterials
› Your worldwide no. 1 reference¹,²
› Outstanding quality³,⁴
› High biofunctionality⁵–¹⁰

› These natural biomaterials were evaluated in more than 1,400 studies from countries all over the world.¹¹
› The safety has been assessed by international and national authorities.

Why is a treatment beneficial?

Smile again
Aesthetically pleasing outcomes & maintenance of healthy teeth.¹²

Pioneering solution
You may avoid complicated procedures in the future.⁵

Stable outcomes
Preventive procedures following tooth loss save you time and possible complications in the long-term by preventing further grafting procedures.⁵,¹³
Why do I have visible implants?

Implants become visible when they are not surrounded by bone and your gums are in direct contact with the implant.

When implants become visible, you may experience...

› an unpleasant appearance to your smile.
› complications such as mechanical tissue trauma or inflammation.
› mechanically unstable implants → trouble chewing.
› implants that might have a reduced implant durability.

How can these bone defects be treated?

There are two clinical situations in which this happens

The bone defect is similar to a “window” where a part of the implant is exposed and is in direct contact with the gums.

The implant is not surrounded by bone on the outer side and is clearly visible.

Geistlich Bio-Oss® and Geistlich Bio-Gide® are applied to the defect to support bone regeneration.

Bone regeneration with Geistlich biomaterials stabilizes the implant and gives you a pleasant aesthetic outcome.

In both cases the surgery starts by uncovering the defect.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body’s own tissue regeneration process effectively.

**Geistlich Bio-Oss® promotes effective bone regeneration**
- Providing a foundation for your body to regenerate bone.
- Made from the mineral part of the bones originating from Australian and New Zealand cattle.
- Swiss quality, refined through 30 years of experience.

**Geistlich Bio-Gide® protects & supports wound healing**
- Supports wound healing and provides a barrier for optimum regeneration of bone.
- Made of collagen obtained from healthy pigs.
- Swiss quality, refined through 20 years of experience.
Post-operative care is an area where you can contribute to the success of your procedure.

**Do’s**

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

**Dont’s**

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world.18

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6 Buser D et al., J Periodontol. 2013 Nov;84(11):1517-27. (Clinical study)
8 Mordenfeld A. et. al., Clin Oral Implants Res. 2010 Sep;21(9): 91–6. (Clinical study)
11 NCBI Pubmed, October 2019, Search term: Bio-Oss OR Bio-Gide OR Mucograft OR Fibro-Gide, PubMed Filter "Species: Humans" (836 hits) or "Other animals" (667 hits). (Market research).
12 Buser D et al., J Dent Res. 2013 Dec;92(12 Suppl):176S-82S. (Clinical study)
15 Degidi M et al., Clin Implant Dent Relat Res. 2009 Sep;11(3):178-82. (Clinical study)
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Patient Information

When teeth become loose
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on
Over 10 million patients worldwide have been treated with Geistlich biomaterials. Let us share some facts with you about these products:

- Geistlich products are scientifically proven top quality Swiss biomaterials.
- Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.

Why is a treatment beneficial?

Tooth retention with regenerative measures

Retention of your natural tooth
Prevention of artificial solutions (implants, bridge restoration).

Stable outcomes
You regain your customary comfort and avoid tooth mobility.

In case of tooth loss

Bone regeneration for final dental prosthesis
Flexibility in the choice of artificial solutions (implants, bridge restoration etc.).

Stable outcomes
Preventive procedures following tooth loss save you time and money in the long-term by preventing further grafting procedures.

Smile again

Aesthetically pleasing outcomes & maintenance of healthy teeth.

Dr. Bröseler (Aachen, Germany)
Why do I have periodontitis?

1. Our mouth is full of bacteria and our teeth are constantly covered with bacteria in a so called plaque, a sticky, colourless coating. Brushing and flossing helps to get rid of oral bacteria.

2. Unremoved plaque becomes harmful for your teeth. The gums surrounding your teeth and the spaces in-between become infected (periodontitis).

3. If you don’t treat periodontitis, your teeth may become loose due to the degradation of the bone surrounding your teeth. Depending on the degree of the infection (periodontitis) teeth might have to be removed.

A tooth affected by periodontitis leads to bone degradation in the long-term.

Hopeless tooth ➔
tooth extraction

A tooth with an advanced degree of periodontitis may need to be extracted. In this case, bone regenerative measures with Geistlich Bio-Oss® and Geistlich Bio-Gide® can be a solution...

Tooth retention with regenerative measures

A tooth with a good prognosis can be retained by regenerating lost bone, with the support of biomaterials such as Geistlich Bio-Oss® and Geistlich Bio-Gide®.

...to ensure an adequate restoration with e.g. implant placement. See Brochure “Tooth out – what’s next?”

Regenerative measures like this can lead to long-term tooth retention with stable outcomes, that retain the comfort and function of the tooth.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body’s own tissue regeneration process effectively.

**Geistlich Bio-Oss® promotes effective bone regeneration**¹⁶
› Providing a foundation for your body to regenerate bone.
› Made from the mineral part of the bones originating from Australian and New Zealand cattle.
› Swiss quality, refined through 30 years of experience.

**Geistlich Bio-Gide® Perio protects & supports wound healing**¹²,¹⁷,¹⁸
› Supports wound healing and provides a barrier for optimum regeneration of bone.
› Made of collagen obtained from healthy pigs.
› Swiss quality, refined through 20 years of experience.
Post-operative care is an area where you can contribute to the success of your procedure.

**Do’s**
- Maintain your oral hygiene and use antibacterial mouthwash as prescribed by your dentist.
- Treat swelling with moist-cold pads.
- Consult your dentist regarding pain.
- Make sure that you visit your dentist for a follow-up appointment.

**Dont’s**
- Do not neglect your oral hygiene.
- Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
- Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world:

More than 15 million
**Geistlich Bio-Oss®**

More than 6.5 million
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Patient Information

When your back teeth are missing
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on

Over 10 million patients worldwide have been treated with Geistlich biomaterials. Let us share some facts with you about these products:

› Geistlich products are scientifically proven top quality Swiss biomaterials.
› Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.

Why is a treatment beneficial?

Optimized bone height

Basis for stable implants.⁹,¹¹

Pioneering solution

You may avoid complicated procedures in the future.⁵

Stable outcomes

Preventive procedures following tooth loss save you time and money in the long-term by preventing further grafting procedures.¹²

Geistlich Biomaterials

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› Outstanding quality³,⁴
› High biofunctionality⁵–⁸

› These natural biomaterials were evaluated in more than 1,400 studies from countries all over the world⁹.
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Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.

Dr. Pascal Valentini (Corte, France)
What happens when your back teeth are missing?

After dental extraction, the height and thickness of the jaw bone diminishes. Sufficient bone is essential to ensure the long-term stability of your dental implants.\textsuperscript{10,11}

**Gain in bone height**

In the back teeth area, a procedure called sinus floor elevation leads to higher bone level for a secure insertion of implants. Your dentist will choose a suitable technique adapted for you and your clinical situation.\textsuperscript{13}

How can back teeth be restored?

**Lack of bone height**

If there is insufficient bone available (↓), implants cannot be firmly anchored.

**Sufficient bone height**

Geistlich Bio-Oss\textsuperscript{®} and Geistlich Bio-Gide\textsuperscript{®} are the regenerative materials of choice when you need a sinus floor elevation.

Bone regeneration procedures are necessary to establish a sufficient bone height (↓) as a basis for secure implants.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body’s own tissue regeneration process effectively.

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**Geistlich Bio-Gide® protects & supports wound healing**

› Supports wound healing and provides a barrier for optimum regeneration of bone.
› Made of collagen obtained from healthy pigs.
› Swiss quality, refined through 20 years of experience.
Back to a healthy smile

Post-operative care is an area where you can contribute to the success of your procedure.

Do's
› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

Dont's
› Do not neglect your oral hygiene.
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Patient Information

Tooth out – what’s next?
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Geistlich Biomaterials

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- Outstanding quality
- High biofunctionality

- These natural biomaterials were evaluated in more than 1,400 studies from countries all over the world.
- The safety has been assessed by international and national authorities.

Why are preventive measures beneficial?

Smile again

Aesthetically pleasing outcomes & maintenance of healthy teeth

Flexibility

In the choice of the final dental prosthesis (implants, bridge restoration)

Stable outcomes

Preventive procedures following tooth loss save you time and possible complications in the long-term by preventing further grafting procedures.

Without preventive measures

Prof. Sculean (Berne, Switzerland)

With preventive measures

Dr. Coutinho Alves (Porto, Portugal)
What happens after tooth removal?

Following tooth removal
The bone retains its shape as before tooth extraction (lines).

Without preventive measures

Tooth removal
Following tooth removal
The bone retains its shape as before tooth extraction (lines).

Collapse of the socket over time due to natural resorption of the bone by the own body.

Implant restoration
Poor aesthetics with implant placement, due to significantly less bone volume.

Bridge restoration
Formation of an unattractive gap between the bridge and underlying gums.

With preventive measures

Filling the socket with Geistlich biomaterials regenerates bone and so retains the volume and shape of the bone over time.

Aesthetic outcome
Preventive measures with Geistlich biomaterials allow flexibility in choosing the final restoration (implants / bridge restoration).
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

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**Geistlich Bio-Gide®** protects & supports wound healing

› Supports wound healing and provides a barrier for optimum regeneration of bone.
› Made of collagen obtained from healthy pigs.
› Swiss quality, refined through 20 years of experience.

**Choice**

Your dentist will choose the appropriate material in order to achieve an optimum outcome.

**Geistlich Mucograft® Seal for gum regeneration**

› Seals the hole after tooth extraction and helps your body to regenerate your own gums.
› Made of collagen obtained from healthy pigs.
› Winner of the Swiss IHZ-Innovation Award 2014: first product developed specifically for gum regeneration.
Post-operative care is an area where you can contribute to the success of your procedure.

**Do's**

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

**Dont's**

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world.\(^2\)

More than 15 million

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**Geistlich Bio-Gide®**

More than 200,000

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8. Mordenfeld A. et al., Clin Oral Implants Res. 2010 Sep;21(9): 961–70. (Clinical study)
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Patient Information

Exposed tooth roots – now what?
Dental treatments are a matter of trust

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Why is a treatment beneficial?

Smile again
Aesthetically pleasing outcomes & maintenance of healthy teeth.\(^{10,12,14}\)

Less pain & fewer complications
No harvesting of own tissue from the palate.\(^{10,15-18}\)

Less surgical chair time
With Geistlich Mucograft\(^{®}\) the surgical chair time is clearly reduced.\(^{12,15}\)

Geistlich Biomaterials
› Your worldwide no. 1 reference\(^{1,2}\)
› Outstanding quality\(^{3,4}\)
› High biofunctionality\(^{5-10}\)

› These natural biomaterials were evaluated in more than 1,400 studies from countries all over the world\(^{\text{11}}\).
› The safety has been assessed by international and national authorities.

Exposed tooth root before treatment.

Completely covered tooth root with Geistlich Mucograft\(^{®}\) 3 months after surgery.

Dr. McGuire & Dr. Scheyer (Houston, USA)
What happens with exposed tooth roots?

If exposed tooth roots and their causes are left untreated, several oral health problems like root hypersensitivity, aesthetic or functional deficiencies, gum inflammation, tooth root caries and impaired oral hygiene can occur.\textsuperscript{19,20}

How can exposed tooth roots be treated?

- Moderately exposed tooth root.
- Progression without treatment.

Initial situation showing a moderately exposed tooth root.

Preparation of the surgical site: creation of a flap to uncover the affected area and a Geistlich Mucograft\textsuperscript{®} is used to cover the exposed tooth root.

Covering the surgical site by mobilizing the flap downwards and suturing.

Outcome of a completely covered tooth root (result may vary).

Solution

Exposed tooth roots can often be treated with a suitable surgical approach. Your dentist will advise you on treatment individually adapted for you.

It is important to address existing infections before surgical treatment. Your dentist will advise you on appropriate measures individually adapted for you.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue. Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body's own tissue regeneration process effectively.

Geistlich Mucograft® for gum regeneration

› A scaffold upon which your body can regenerate your own gums.
› Made of collagen obtained from healthy pigs.
› Winner of the Swiss IHZ-Innovation Award 2014: first product developed specifically for gum regeneration.
Back to a healthy smile

Post-operative care is an area where you can contribute to the success of your procedure.

_Do's_

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

_Don’ts_

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world.  

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Inflamed gums – now what?
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Why is a treatment beneficial?

Smile again
Aesthetically pleasing outcomes & maintenance of healthy teeth.¹⁰, ¹²–¹⁴

Less pain & fewer complications
No harvesting of own tissue from the palate.¹⁰, ¹⁵–¹⁸

Less surgical chair time
With Geistlich Mucograft® the surgical chair time is clearly reduced.¹², ¹⁵

Initial situation before treatment
Due to inflammation and bleeding the oral hygiene is impaired.

6 month after surgery
Restored healthy attached gum tissue with Geistlich Mucograft®.

Dr. Panaite & Dr. Charles (Pasadena, USA)
What happens when gum tissue is not healthy?

If you have insufficient healthy attached gum tissue, several oral health problems like inflammation, pain, bleeding and loss of bone and gums can occur.¹⁹–²²

Healthy situation

Healthy gums allow optimal oral hygiene for maintenance of bone and gums.

Problematic situation

Shifted boundaries between attached and unattached gum tissue can lead to problems.

Exposed tooth necks are one of the consequences of unhealthy gum tissue.

How can gum tissue be regenerated?

Initial situation showing an inflamed area in the gum.

Preparation of the surgical site: unhealthy gum tissue is removed.

Following the preparation, Geistlich Mucograft® is used to help regenerate attached gum tissue.

Restored, healthy attached gum tissue 6 months after surgery (results may vary).

Solution

An increase in gum tissue can be achieved by a suitable surgical approach. Your dentist will advise you on treatment individually adapted for you.

It is important to address existing infections before surgical treatment. Your dentist will advise you on appropriate measures individually adapted for you.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

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**Geistlich Mucograft® for gum regeneration**

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Do's

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

Dont's

› Do not neglect your oral hygiene.
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Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world. 

More than 15 million
**Geistlich Bio-Oss®**

More than 6.5 million
**Geistlich Bio-Gide®**

More than 200,000
**Geistlich Mucograft®**

More than 15,000
**Geistlich Fibro-Gide®**

References
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2. Millennium Research Group, Dental Biomaterials Europe, 2016 (Market research).
3. ISO 13485 certificate, research and development
4. ISO 9001 certificate, multi site quality management
8. Mordenfeld A. et al., Clin Oral Implants Res. 2010 Sep;21(9): 961-70. (Clinical study)
11. NCBI Pubmed, July 2019, Search term: Bio-Oss OR Bio-Gide OR Mucograft OR Fibro-Gide, PubMed Filter “Species: Humans” (830 hits) or “Other animals” (665 hits) (Market research).
23. Based on the number of units currently sold. Data on file (Wolhusen, Switzerland)
Lost gum around teeth?
How to solve esthetical and sensitivity demands
Post-operative care is an area where you can contribute to the success of your procedure.

**Do's**

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

**Dont's**

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery for. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
› Do not interfere with the surgical wound, or with sutures.
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on

Over 10 million patients worldwide have been treated with Geistlich biomaterials. Let us share some facts with you about these products:

› Geistlich products are scientifically proven top quality Swiss biomaterials.
› Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.

Why is a treatment beneficial?

Smile again
Esthetically pleasing outcomes & maintenance of healthy teeth.

Less pain perception and analgetics intake
No harvesting of own tissue from the palate.

Less surgical chair time
With Geistlich Fibro-Gide® the surgical chair time is reduced.

Geistlich Biomaterials
› Your worldwide no. 1 reference
› Outstanding quality
› Unique biofunctionality

These natural biomaterials were evaluated in more than 1,000 studies from countries all over the world.
The safety has been assessed by international and national authorities.

Initial situation before treatment
Exposed tooth root that causes several oral health problems e.g. root hypersensitivity and esthetic or functional deficiencies.

6 month after surgery
Restored function and esthetics by a completely covered tooth root with Geistlich Fibro-Gide®.

Prof. Zucchelli (Bologna, Italy)
What happens with exposed tooth roots?

If exposed tooth roots and their causes are left untreated, several oral health problems like root hypersensitivity, esthetic or functional deficiencies, gum inflammation, tooth root caries and impaired oral hygiene can occur.

Exposed tooth root.

How can exposed tooth roots be treated?

Covering the surgical site by mobilizing the flap upwards and suturing.

It is important to address existing infections before surgical treatment. Your dentist will advise you on appropriate measures individually adapted for you.

Solution

Exposed tooth roots can often be treated with a surgical approach. Your dentist will advise you on treatment individually adapted for you.

Initial situation showing moderately exposed tooth root.

Preparation of the surgical site to uncover the affected area and...

...insertion of Geistlich Fibro-Gide® to cover the exposed tooth root.

Final outcome of a completely covered tooth root (result may vary).
Human body possesses the ability to regenerate, in other words, to rebuild missing tissue. In most cases it still needs assistance through a scaffold which serves as a template. The natural Geistlich products support the body’s own tissue regeneration processes effectively.

**Geistlich Fibro-Gide® for gum thickness**

› A scaffold upon which your body can regenerate your own gums and its thickness.
› Made of collagen from healthy pigs.
› Winner of the KTI Swiss MedTech Award 2008: first collagen matrix designed for gaining gum thickness.10,11
Biomaterials from Geistlich Pharma AG are the most frequently used materials in regenerative dental medicine throughout the world:\(^1\):

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More than 4.5 million
**Geistlich Bio-Gide\(^{®}\)**

More than 80,000
**Geistlich Mucograft\(^{®}\)**

More than 24,000
**Geistlich Mucograft\(^{®}\) Seal**

New
**Geistlich Fibro-Gide\(^{®}\)**

References
2. iData Research Inc., European Dental Bone Graft Substitutes and other Biomaterials Market, 2015.
3. ISO 13485 certificate, research and development.
4. ISO 9001 certificate, multi site quality management.
12. Based on the number of units currently sold. Data on file (Wolhusen, Switzerland)
Missing gum at dental prosthesis?
How to solve esthetical and hygienic demands
Back to a healthy smile

Post-operative care is an area where you can contribute to the success of your procedure.

**Do’s**

› Maintain your oral hygiene and use antibacterial mouth wash as prescribed by your dentist.
› Treat swelling with moist-cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

**Don’ts**

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
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No harvesting of own tissue from the palate.

Less surgical chair time
With Geistlich Fibro-Gide® the surgical chair time is reduced.

Initial situation before treatment
Beside the unpleasent esthetics, the gum concavity complicates oral hygiene.

2 years after surgery
Restored function and esthetics by gaining gum thickness with Geistlich Fibro-Gide®.

Dr. Otto Zuhr (Munich, Germany)
What happens when gum tissue is not healthy?

If you have insufficient gum thickness, several problems like difficulties while cleaning or unpleasant esthetic appearance can occur.

**Healthy situation**

Healthy gums allow optimal oral hygiene and contribute to a pleasant esthetic appearance.

**Problematic situation**

A concavity of the gum leads to unpleasant esthetics and difficulties with proper oral hygiene.

How can gum tissue be regenerated?

**Initial situation** showing a concavity of the gum due to missing gum tissue.

**Preparation of the surgical site and...** insertion of Geistlich Fibro-Gide®.

**Solution**

An increase in gum thickness can be achieved by a surgical approach. Your dentist will advise you on treatment individually adapted for you.

**Closing the wound with sutures in order to allow wound healing.**

**Final outcome of a restored gum with sufficient thickness (results may vary).**
Human body possesses the ability to regenerate, in other words, to rebuild missing tissue. In most cases it still needs assistance through a scaffold which serves as a template. The natural Geistlich products support the body's own tissue regeneration processes effectively.

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Patient Information

Customized 3D treatment of larger bone defects
Dental treatments are a matter of trust

Our experience and expertise is something you can rely on

Over 10 million patients worldwide have been treated with Geistlich biomaterials.

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› Meticulous selection of raw materials, together with a strictly controlled manufacturing process, allows Geistlich biomaterials to conform to high safety requirements and ensures high tolerability.
› These natural biomaterials were evaluated in more than 1,000 studies from countries all over the world.
› Their safety has been assessed by international and national regulatory bodies.

Regenerate your bone

› Why Titanium? Titanium is a well-tolerated material, state of the art in dental implant care. The titanium scaffold provides stability, that is very important in larger bone defects.
› Why Yxoss CBR®? Thanks to the 3D technology, the scaffold is printed very precise, avoiding manually adaptations by the dentist. Every patient has a unique jaw and a specific defect.
› Why Geistlich Biomaterials? Your defect needs a bone substitute material as a filler under the titanium scaffold for new bone formation. These materials are additional covered by a collagen membrane, that supports gum healing and the bone regeneration.

Why is a treatment beneficial?

Smile again
Aesthetically pleasing outcomes & maintenance of healthy teeth.

Restoring functionality
Predictable bone gain for long-term implant survival with Geistlich Biomaterials®.

Stable outcomes
Less bone resorption & stable clinical outcomes with Geistlich Biomaterials®.

Implant placement is not possible due to insufficient bone width and height.

1 year post-operation: sufficient bone width and height maintained for stable implant placement.

Dr. Keyvan Sagheb & Dr. Eik Schiegnitz
(Mainz, Germany)
What happens when there is not enough bone available?

Accidents, dental traumas or advanced periodontists are just some of many reasons for tooth loss followed by bone resorption.

**Customized patient treatment by 3D printed technology**

Sufficient bone is essential for long term implant stability. With the 3D printed titanium scaffold Yxoss CBR® an individual restoration of your original jaw bone in width and height can be established.

Therefore, your dentist sends the x-ray information to ReOss®. With this data, the 3D printed titanium scaffold will be exclusively produced to fit to your bone defect.

How can these bone defects be treated?

Most times, the following two clinical situations requires a special intervention. In some cases, the bone is diminished in width and height at the same time.

**Insufficient width of the bone wall**

Large bone defects where one bone wall is maintained can be restored...

**Insufficient height of the bone wall**

...by using the 3D printed Yxoss CBR® in combination with autologous bone, a bone substitute and a membrane in order to restore your diminished bone 3-dimensional. This leads to a high stability during the healing phase.

The good result is achieved after reconstruction of the bone walls, removal of titanium (Yxoss CBR®) and implant placement after approximately 6–8 months after the augmentation.
Biomaterials are scaffolds that can be implanted to replace or repair missing tissue.

Biomaterials, such as bone substitutes, collagen membranes and matrices, are used regularly in regenerative dentistry to support the body’s own tissue regeneration process effectively.

**The bone substitute promotes effective bone regeneration**
- Providing a foundation for your body to regenerate bone.
- Made from the mineral part of the bones originating from cattle.
- Swiss quality, refined through 30 years of experience.

**The membrane protects & supports wound healing**
- Supports wound healing and provides a barrier for optimum regeneration of bone.
- Made of collagen obtained from healthy pigs.
- Swiss quality, refined through 20 years of experience.

**Yxoss CBR® stabilizes 3-Dimensional bone regeneration**
- Customized to your bone defect by using a modern 3D printed technology
- Made of pure titanium
- Easy removable after bone regeneration

Bone regeneration in larger bone defects requires some form of grafting in order to restore volume, stability and ultimately regenerate bone.
Back to a healthy smile

Post-operative care is an area where you can contribute to the success of your procedure.*

👍 Do’s*

› Maintain your oral hygiene and use antibacterial mouthwash as prescribed by your dentist.
› Treat swelling with moist cold pads.
› Consult your dentist regarding pain.
› Make sure that you visit your dentist for a follow-up appointment.

👎 Dont’s

› Do not neglect your oral hygiene.
› Do not brush or floss at the site of surgery for 1 week after surgery. A toothbrush with especially soft bristles can usually be used for cleaning the teeth in the vicinity of the wound.
› Do not drink coffee or alcohol and do not smoke cigarettes for 2–3 days after surgery.
› Avoid chewing of hard food.

*Do’s and Dont’s of dental societies on postoperative care may include (but are not limited to) these recommendations and considerations. You dentist will provide more details.
Biomaterials from Geistlich Pharma AG are among the most frequently used products in regenerative dental medicine throughout the world\textsuperscript{13-15}

New Technology
Manufactured by ReOss\textsuperscript{®}

\textbf{Yxoss CBR\textsuperscript{®}}

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