BIOTECK®

H2®

INNOVATIVE COLLAGEN HYDROGEL

For the non-surgical treatment of periodontal and peri-implant inflammation



WHAT IS H42®?

Collagen hydrogel that protects and repairs

H42® is an innovative collagen hydrogel with controlled biological properties, consistency and adhesiveness, enabling it to adapt perfectly to the geometry of the space into which it is inserted.

H42® IS THE RESULT OF UNIQUE TECHNOLOGY

H42® is the result of Exur-Teck®, a unique and innovative technological process developed by Bioteck®, which enables the combination of natural components, such as equine collagen, with resorbable polymers and trace amounts of ascorbic acid, which acts as a viscosity-modulating agent.

Exur-Teck
Hydrogel technology by BIOTECK

PROPERTIES: WHY H42® IS A UNIQUE PRODUCT

ITS VISCOELASTICITY allows it to adapt perfectly to the geometry of peri-implant and periodontal pockets.

RESORBABLE: following a single application, it does not need to be removed; it is naturally eliminated without leaving any residue.

FILLS UP TO 4-6 periodontal/ peri-implant pockets in a single treatment session.

VERSATILE: it is used for both periodontal and peri-implant pockets.

COMPATIBLE WITH A WIDE RANGE OF NEEDLES:
H42® can be administered using various types of needles with a diameter between 20 and 27 G, fitted with a *Luer lock connector*.

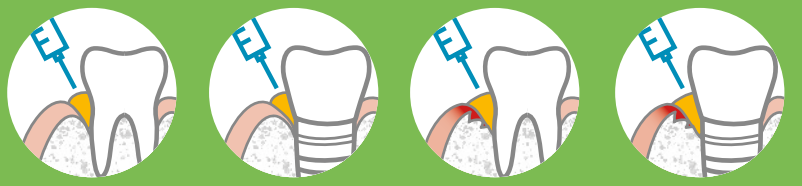
UNIQUE COMPOSITION
based on natural collagen, vitamin C and resorbable polymers.



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WHEN TO USE

H42® is an innovative collagen hydrogel used as an adjunct in the non-surgical treatment of periodontal and peri-implant conditions, such as gingivitis, periodontitis, mucositis and peri-implantitis.



GINGIVITIS | MUCOSITIS | PERIODONTITIS | PERI-IMPLANTITIS

HOW TO USE

JUST A SINGLE APPLICATION IS ALL IT TAKES TO ENJOY ALL THE BENEFITS OF H42®



DIAGNOSIS / POCKET IDENTIFICATION

REMOVAL OF BIOFILM

REMOVAL OF MINERALISED DEPOSITS

BACTERICIDAL TREATMENT (OPTIONAL)

FILLING OF THE POCKET WITH H42®

Following site-specific non-surgical periodontal treatment of the tooth or implant to be treated – and any further decontamination – proceed to thoroughly dry the site.
Next, fill the pocket by extruding H42® from the syringe, starting from the base of the pocket.
It is essential to avoid saliva contamination for the next 5 minutes (setting time) to ensure optimal adhesion of H42® to the tissues.
The application of H42® does not in any way alter the usual post-operative instructions following non-surgical mechanical instrumentation.

All the benefits

PREVENTS BACTERIAL RECOLONISATION

Creates a seal that isolates the treated pocket from the surrounding environment preventing a secondary infection from taking hold.

PROMOTES THE NATURAL HEALING OF GUM TISSUE

Free from aggressive components and, thanks to its collagen component which acts as a substrate for cell colonisation, H42® creates an environment that promotes the natural healing of the patient's tissue.

EASY TO MANAGE

It does not require any special storage or transport conditions and is ready for use.

EASY TO USE

Single-step application process, requiring no special treatment after application.
Minimal discomfort for the patient.



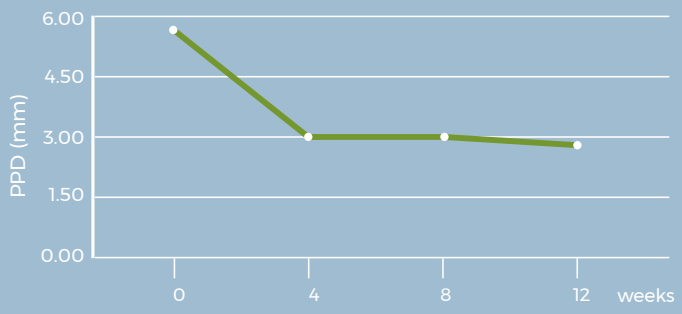
The needle is not included in the product packaging.

Go to active literature

Scientific evidence

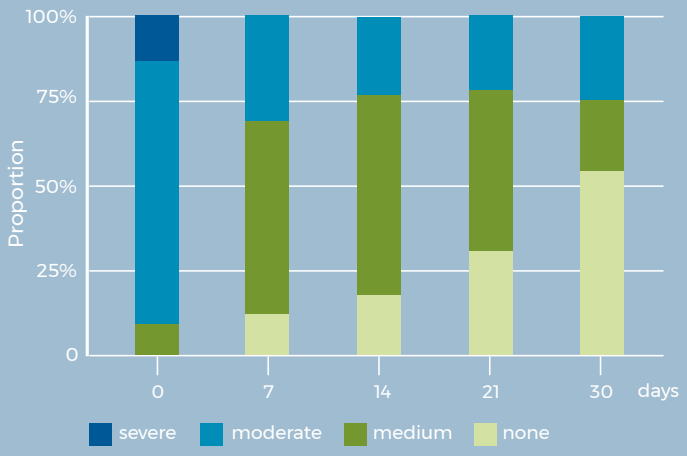
PERIODONTITIS

Pocket depth reduction (PPD)



Graphs relating to a prospective, multicentre study involving 153 pockets with stage III periodontitis and an initial mean PPD of 5.73 mm (ranging from 5–8 mm). PPD was reduced by an average of 2.86 mm, with resolution of inflammation in 54% of cases.

Inflammation



Roncati M., Fiorini E., Brera F., Brera M., Parma-Benfenati L., ClinicalTrials.gov ID NCT07592377

H42® as a therapeutic aid in advanced cases of periodontitis: a conservative alternative which, in some cases, can avoid the need for surgery



Reduction in PPD at 25 sites with an initial PPD of 7-8 mm, at various stages of treatment.

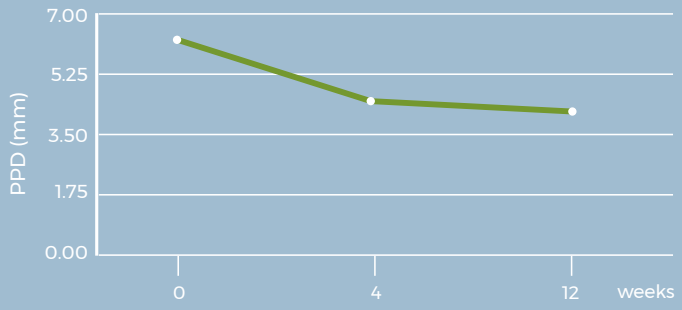


Clinical assessment of PPD at baseline and after 12 weeks. The probe showed a reduction in PPD from 8 mm to 3 mm.

Courtesy of Dr Marisa Roncati, Ferrara (IT)

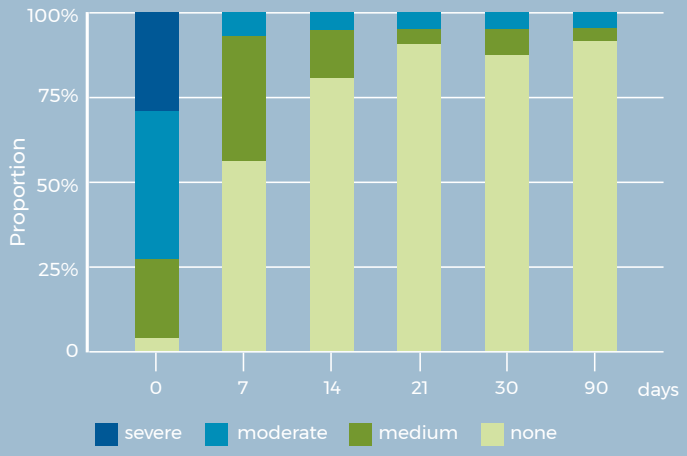
PERI-IMPLANTITIS

Pocket depth reduction (PPD)



Graphs relating to a multicentre retrospective study involving 23 pockets with severe peri-implantitis. With an initial mean PPD of 6 mm, a reduction of approximately 2 mm and resolution of inflammation were observed in 86% of cases.

Inflammation



De Rosa N, Papa G, Tarquini G., ClinicalTrials.gov ID NCT07700628

Clinical cases

GINGIVITIS

Courtesy of Dr Marisa Roncati, Ferrara (IT)



Pre-treatment periapical X-ray image showing no evidence of bone loss.



Gingivitis affecting tooth 43 in the disto-vestibular region, showing a PPD of 4 mm, with bleeding on probing and a CAL of 4 mm.



Application of H42® following the removal of biofilm and mineralised deposits.

PERIODONTITIS

Courtesy of Dr Marisa Roncati, Ferrara (IT)



Periapical X-ray image showing bone loss around teeth 25-26.



Initial probing of tooth 26 reveals a PPD of 6 mm, associated with bleeding and a CAL of 6 mm.



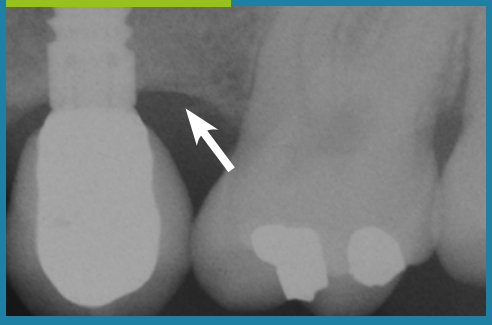
Following the removal of biofilm and mineralised deposits, the H42® collagen hydrogel is extruded from the base of the pocket until it is filled.



At 1 month: PPD reduced to 3 mm, no bleeding and CAL of 4 mm.

MUCOSITIS

Courtesy of Dr Marisa Roncati, Ferrara (IT)



Periapical X-ray image showing no bone loss, as indicated by the white arrow.



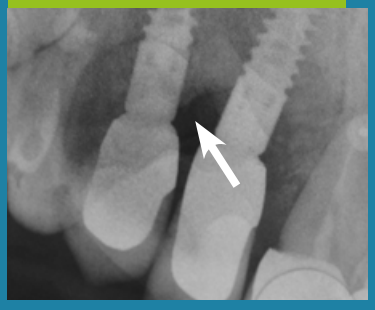
Mucositis affecting tooth 14 in the mesio-vestibular region, showing a PPD of 5 mm with bleeding on probing.



Following mechanical debridement and drying of the site, H42® was applied using a needle-tipped cannula, starting from the base of the pocket and proceeding towards the gingival margin.

PERI-IMPLANTITIS

Courtesy of Dr Giacomo Tarquini, Rome (IT)



Pre-treatment X-ray showing bone loss in tooth 12.



Initial condition: pocket with suppuration, PPD 7 mm, presence of an open fistula.



Application of H42® following mechanical debridement and drying of the site. The hydrogel retains its rheological properties even after being extruded from the syringe.



At 7 days: resolution of inflammation and restoration of gum health.



At the 3-month follow-up, the PPD had decreased from 4 mm to 1 mm, with no bleeding on probing, as had the CAL from 4 mm to 1 mm.



At 2 months: PPD of 2 mm, no bleeding and CAL of 3 mm.



At 3 months: PPD reduced from 6 mm to 2 mm, CAL of 4 mm. An improvement in the mucogingival seal is observed.



At the 3-month follow-up, the PPD had decreased from 5 mm to 3 mm, allowing for the non-surgical resolution of the mucositis and preserving the implant-supported restoration.



At 30 days: healthy peri-implant tissues maintained, no reinfection.



At 90 days: stable and healthy tissues, no reinfection.



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H42-104 Hydrogel Oral - 1 syr 0.4 cc
H42-304 Hydrogel Oral - 3 syr 0.4 cc/syr



BIOTECK®.
INNOVATING BIOMATERIALS.

Bioteck® is an Italian company that has been producing bone substitutes and protective membranes and solution successfully used in orthopaedics, neurosurgery and oro-maxillo facial surgery since 1995.
Scientific research and innovation are the guiding principles that have enabled **Bioteck®** to patent new production processes and to create unique bio-materials of high quality in terms of performance level and safety guarantees. Materials now used in 72 countries worldwide.
At its multi-functional centre for research and development and thanks to state-of-the-art production processes, every day **Bioteck®** works to pursue its key objective: to innovate bio-materials.

WWW.BIOTECK.COM

BIOTECK ACADEMY.
SCIENTIFIC COMMUNITY FOR THE CULTURE OF THE CONSCIOUS CHOICE.

Bioteck Academy is the innovative scientific community which promotes the circulation and sharing of knowledge in the field of tissue regeneration applied to dentistry, maxillo-facial surgery, orthopaedics and neurosurgery.
Established as a hub for the clinical and scientific expertise focussed on by **Bioteck®** spanning twenty years of research, today it is an entity open to all professionals who decide to join and share their own surgical experience.

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IMQ CERTIFIED

BIOTECK®

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