

PIEZON® PS ON NATURAL TEETH



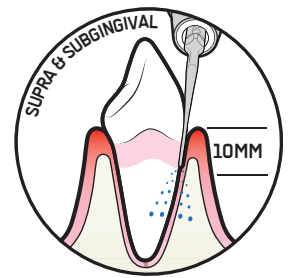
Supra- and subgingival calculus removal up to 10mm.

Scientific evidence on Guided Biofilm Therapy - Caries and Perio Prevention - Second Edition - Sept. 17th, 2019

CLINICAL OUTCOMES

PIEZON® PS Instrument removes calculus supra- and subgingivally in periodontal pockets^{1,2,3,4,5,6}:

- ▶ Has best interproximal access⁷ and effectiveness compared to 10 other competitors instruments⁸.
- ▶ Significantly reduces Full-Mouth Plaque Score (FMPS) and full-mouth bleeding score (FMBS)⁴.
- ▶ Significantly reduces Probing Pocket Depth (PPD)^{2,3,6} during supportive periodontal therapy as much as PERIOFLOW®.
- ▶ Significantly improves Clinical Attachment Level (CAL)^{2,3,6}.
- ▶ Better results in terms of Probing Pocket Depth (PPD) and Clinical level attachment (CAL) than hand instrumentation, in initial treatment of chronic periodontitis¹.
- ▶ Better penetration than pressure-controlled probe and conventional curettes (Gracey) in case of periodontitis⁹.
- ▶ Decreases bleeding on probing (BOP)³.



MINIMAL INVASIVENESS, MAXIMAL COMFORT

PIEZON® PS Instrument:

- ▶ Generates minor pain intensity from 3 to 3.5 on Visual Analog Scale (VAS), recommendable for Supportive Periodontal Therapy (SPT)¹⁰.
- ▶ Generates minimum pain intensity thanks to its linear movement and compared to magnetostrictive technology¹¹.
- ▶ Also recommended, as a slim instrument, supragingival for enhancing patient comfort and compliance¹².
- ▶ Reduces sensitivity significantly more than conventional curettes⁴ (Gracey and After Five) in mild to moderate periodontitis.
- ▶ Retains a great part (80%-84%) of coronal and apical cementum, "of paramount importance for the quality of healing", compared to hand instruments^{5,13,14} and air scalars.
- ▶ Generates minimum defect depth¹⁵, significantly less than magnetostrictive scalars¹⁶.
- ▶ Produces a smoother surface than hand instrumentation¹³, limiting surface scratches and gouges⁵.

MICROBIOLOGICAL BENEFITS

PIEZON® reduces the bacteria load, especially the bacteria responsible for periodontitis and bleeding:

- ▶ AA (*Aggregatibacter actinomycetemcomitans*) but lower reduction than PERIOFLOW®¹.
- ▶ Red complex bacteria: *P. gingivalis*^{3,6}, *T. forsythia*^{3,6}, *T. denticola*^{3,6}.
- ▶ Orange complex bacteria³.

GBT PROTOCOL

In accordance with the GBT - Guided Biofilm Therapy protocol:

- ▶ PS Instrument can be used in combination with PERIOFLOW®¹³ for maximizing comfort³.
- ▶ PS Instrument limits approximately 40% the surface roughness³ on amalgam, composite and porcelain compared to stronger supragingival A Instrument. PI Instrument shall be recommended on these surfaces¹⁷.



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References

1 FULL-MOUTH ULTRASONIC DEBRIDEMENT VERSUS QUADRANT SCALING AND ROOT PLANING AS AN INITIAL APPROACH IN THE TREATMENT OF CHRONIC PERIODONTITIS

JL. Wennström, C. Tomasi, A. Bertelle, E. Dellasega, Journal of Clinical Periodontology; 32(8):851-9 – 2005

2 SUBGINGIVAL DEBRIDEMENT OF PERIODONTAL POCKETS BY AIR POLISHING IN COMPARISON WITH ULTRASONIC INSTRUMENTATION DURING MAINTENANCE THERAPY

JL. Wennström, G. Dahlén, P. Ramberg. Journal of Clinical Periodontology; 38(9):820-7 – 2011

3 SUBGINGIVAL AIR-POLISHING WITH ERYTHRITOL DURING PERIODONTAL MAINTENANCE

N. Muller, R. Moene, J. Cancela, A. Mombelli. Journal of Clinical Periodontology; 41(9):883-9 – 2014

4 EFFECTS OF TWO DIFFERENT METHODS OF NON-SURGICAL PERIODONTAL THERAPY ON PATIENT PERCEPTION OF PAIN AND QUALITY OF LIFE: A RANDOMIZED CONTROLLED CLINICAL TRIAL

M. Aslund, J. Suvan, DR. Moles, F. D'Aiuto, MS. Tonetti. Journal of Periodontology; 79(6):1031-40 – 2008

5 THE EFFECT OF VARIOUS ULTRASONIC AND HAND INSTRUMENTS ON THE ROOT SURFACES OF HUMAN SINGLE ROOTED TEETH: A PLANIMETRIC AND PROFILOMETRIC STUDY

A. Mittal, AS. Nichani, R. Venugopal. Journal of Indian Society of Periodontology; 18(6):710-7 – 2014

6 PILOT STUDY ON THE CLINICAL AND MICROBIOLOGICAL EFFECT OF SUBGINGIVAL GLYCINE POWDER AIR POLISHING USING A CANNULA-LIKE JET

K. Kargas, L. Tsalikis, D. Sakellari, G. Menexes, A. Konstantinidis, International Journal of Dental Hygiene; 13(3):161-9 – 2014

7 CRA - CLINICAL RESEARCH ASSOCIATES

Clinical Newsletter - June – 1998

8 CALCULUS REMOVAL OF VARIOUS ULTRASONIC DRIVEN DEVICES WITH UNIVERSAL TIPS

P. Schmage, B. Blochberger, I. Nergiz, P. Pfeiffer, U. Platzer. Universitat Hamburg; 2011

9 PENETRATION DEPTHS WITH AN ULTRASONIC MINI INSERT COMPARED WITH A CONVENTIONAL CURETTE IN PATIENTS WITH PERIODONTITIS AND IN PERIODONTAL MAINTENANCE

DS. Barendregt, U. van der Velden, MF. Timmerman, Journal of Clinical Periodontology; 35(1):31-6 – 2008

10 PAIN PERCEPTION DURING DEBRIDEMENT OF HYPERSENSITIVE TEETH ELICITED BY TWO ULTRASONIC SCALERS

S. Müller, H. Huber, G. Goebel, G. Wimmer, I. Kapferer-Seebacher; Clinical Oral Investigation; 21(5):1559-1564 – 2013

11 PATIENTS' PERCEPTION OF PAIN DURING ULTRASONIC DEBRIDEMENT: A COMPARISON BETWEEN PIEZOELECTRIC AND MAGNETOSTRICTIVE SCALERS

Muhney KA, Dechow PC. J Dent Hyg. 2010 Fall;84(4):185-9

12 SUBJECTIVE INTENSITY OF PAIN DURING ULTRASONIC SUPRAGINGIVAL CALCULUS REMOVAL

A. Braun, S. Jepsen, F. Krause, Journal of Clinical Periodontology; 34: 668-672 – 2007

13 PRESERVATION OF ROOT CEMENTUM: A COMPARATIVE EVALUATION OF POWER-DRIVEN VERSUS HAND INSTRUMENTS

E. Bozbay, F. Dominici, Y. Gokbuget, S. Cintan, L. Guida, MS. Aydin, A. Mariotti, A. Pilloni - International Journal of Dental Hygiene; 16(2):202-209 – 2016

14 ROUGHNESS AND LOSS OF SUBSTANCE OF TOOTH SURFACES AFTER BIOFILM REMOVAL WITH DIFFERENT PROCESSING METHODS

M. Haas, M. Koller, B. Arefnia, Die assistentin; 03/18, pages 22-25 – 2019

15 SUBSTANCE LOSS AND ROOT SURFACE STRUCTURE EFFECTED BY 10 DEEP SCALING INSTRUMENT

P. Schmage, Y. Schultz, U. Platzer, S. Maisch, I. Nergiz. Universitat Hamburg; No. 2959 EuroPerio

16 COMPARISON OF ROOT SUBSTANCE REMOVAL BY MAGNETOSTRICTIVE AND PIEZOELECTRIC ULTRASONIC AND SONIC SCALERS IN VITRO

TF. Flemming, GJ. Petersilka, A. Mehl, R. Hickel B. Klaiber, Periodontology – 1997

17 THE COMPARISON OF THE EFFECTS OF THREE TYPES OF PIEZOELECTRIC ULTRASONIC TIPS AND AIR POLISHING SYSTEM ON THE FILLING MATERIALS: AN IN VITRO STUDY

T. Arabaci, YC. İçek, M. Özgöz, VC. Anakçi, CFC. Anakçi, A. Eltas - International Journal of Dental Hygiene; 5(4):205-10 – 2007



BEFORE PIEZON®

AFTER PIEZON®

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