

## Editoriaal

Het is een tijdje geleden dat er nog een Nieuwsbrief verscheen. Het congres slorpte veel tijd en energie. De voldoening met het behaalde resultaat maakt het allemaal meer dan waard.

Ik denk dat we kunnen stellen dat het congres een geslaagde onderneming was. Het aantal deelnemers lag ver onder de geschatte maar het waren dan ook sterk geïnteresseerden wat het geheel naar de sprekers toe aangenamer maakt. Conclusie van dit gebeuren: het onderwerp is zo prangend dat de actualiteit het nog steeds niet gevonden heeft. Eerst dienen er ongelukken of zware problemen zich aan te dienen eer onze systemen in gang schieten. De afgevaardigde van minister Vandeurzen, zoals verwacht verhinderd, was onder de indruk en vroeg om bijkomende info van de sprekers om het probleem op kaart te kunnen zetten. Hoop doet leven. Langs deze weg wil ik ook tevens de congresvoorzitter, prof. dr. em. Jan De Boever bedanken voor zijn uitstekend werk en zijn onvermoeibaarheid tijdens het congres.

Nu naar het laatste event van dit jaar: wat met de patiënt die medicatie neemt? Een probleem waar we dagdagelijks mee te maken krijgen. Richtlijnen veranderen, nieuwe problemen stellen zich.

Voor volgend jaar zijn de breinen op volle toeren bezig, contacten worden gemaakt, onderwerpen uitgeplozen. Meer hierover als alles op punt staat.

In deze Nieuwsbrief een artikel over Gerber, een icoon in de tandheelkunde, die enkele maanden geleden overleed. Dit werd via prof. G White, de auteur, ons toegestuurd en met toelating van de publicator vrijgegeven om in onze Nieuwsbrief te verschijnen.

Nog een deugddoend verlof en tot oktober.

Eric Vandenoostende



# 2018 NR 28

Vlaamse Wetenschappelijke Vereniging voor Tandheelkunde vzw.

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# THE CONDYLATOR ARTICULATOR REVISITED

This paper is dedicated to the memory of Peter Gerber, 1944-2018

## INTRODUCTION

In 1948, the late Professor Dr Albert Gerber introduced an articulator with the important innovation that the articulator's temporomandibular joints took account of the anatomical shape of these parts. Called the Translator it was an almost immediate success. Gerber was Professor of Prosthetics at the University of Zurich Dental Institute so his articulator had a good pedigree. His predecessor was the famed Dr Alfred Gysi whose pioneering work on dental occlusion and articulator design had already earned Zurich an international reputation for excellence.

Parallel with Gerber's innovative articulator and its subsequent refinement over the years was his equally important selection and bringing together of techniques, materials and devices which would add to the accuracy and certainty of its use in practice. Soon renamed the Condylator articulator, the whole quickly became known as the Gerber Technique and has remained so for 70 years. Originally intended for removable and fixed prosthodontics, the treatment of temporomandibular joint dysfunction (TMD) came soon afterwards. Figure 1.

FIGURE 1: Condylator Model 6 'Individual' articulator.



Clearly dentistry has changed enormously since 1948. Still with us are the often-difficult problems of TMD and edentulism, although the latter is getting less in the developed world. The widespread use of dental implants in particular and challenges related to people keeping their teeth longer are now making demands on dentistry which were unimagined in 1948.

This paper looks into some aspects of Condylator Model 6 (Individual and Vario) articulators and methods for their use with more recent dentistry in mind.

## The Condylator's design philosophy

When the teeth are apart and/or the patient has insufficient teeth to occlude, only the temporomandibular joints (TMJ's) control mandibular movement. Accordingly, Gerber copied the roof-shaped sliding surfaces of natural TMJ's for the Condylator fig. 2a, a decision which allowed it to replicate the Bennett movement as well as protrusive and lateral jaw movements. Figure 2b and 2c. The natural three-dimensional condylar guidance envelope of movement produced allowed the usual incisal guidance table to be discarded as a final mandibular movement guide. The occlusion of artificial teeth is refined in finished prostheses by 'grinding-in' using fine carborundum paste. Produced is an envelope of smooth gliding tooth contacts which are free from cuspal interferences which in turn increases prosthesis stability and safe bearing.

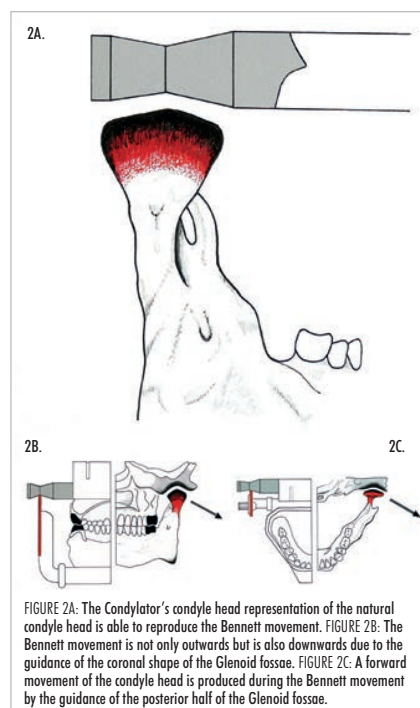


FIGURE 2A: The Condylator's condyle head representation of the natural condyle head is able to reproduce the Bennett movement. FIGURE 2B: The Bennett movement is not only outwards but is also downwards due to the guidance of the coronal shape of the Glenoid fossae. FIGURE 2C: A forward movement of the condyle head is produced during the Bennett movement by the guidance of the posterior half of the Glenoid fossae.

Occlusal balance is checked by how the teeth contact and glide over each other in the articulator so replicating what occurs in the mouth. If the occlusion consists of natural and artificial teeth, then the natural teeth and the joints together control jaw movements and occlusion of the artificial teeth is made to conform to this. Compelling evidence of mandibular movement accuracy is that tooth wear facets on upper and lower natural teeth can be brought into contact in the articulator.

The angles of the roof-shaped sliding condylar surfaces are provided as average values and not measured for individual patients. Gerber followed a 'measured accuracy by need' philosophy throughout his design. He gave increased importance to articulator movements which were critical for occlusal accuracy (such as sagittal condylar path inclination and the exact position of centric relation) and average values where it could be shown that it was the correct form of movement within the obtained envelope of condylar activity that was the most important.

The provided complete envelope of movement generated by the Condylator is never used by patients in its entirety; it's much too large. Depending on individual needs, even changing needs as therapy or a corrected centric relation required, the patient uses that part of the movement envelope individual to their particular needs.

Gerber saw that the summit position of the condyle heads in their respective glenoid fossae coincided with the apex of a Gothic arch tracing and that this was centric relation. The found centric relation by this method is a clearly-defined and reproducible position at a given jaw separation. Additionally found was that there was usually a more retruded or 'strained' condylar head position posterior to this summit position. This finding led to the use of sliding locks to selectively open and close parts of the articulator's glenoid fossae to give more selective TMJ control including this retral movement. Figures 3a, 3b, 3c.



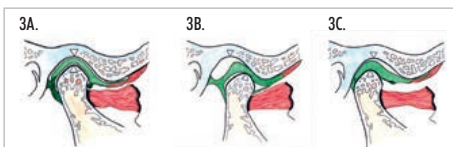


FIGURE 3A: The natural and artificial condyle heads in their most stable natural position of centric relation. FIGURE 3B: Natural and artificial condyle heads in mandibular protrusion. Note the curved beginning of this movement from centric relation. FIGURE 3C: Natural and artificial condyle heads in a retrusive position; posterior to centric relation. Note the curved downward path.

In natural joints the condylar path from fully retruded to protrusion is curved and so it is with the Condylator's mechanical joints. This retral movement and its curved path are used for all occlusions including the treatment of TMD.

Complementing the Condylator is a matching light-weight face-bow which is attached to the mandible so moves during jaw movement. When spring-loaded pencil points are located over the palpated position of the condyle heads on the side of the patients face, a protrusive jaw movement allows the pencils to draw individual left and right sagittal condylar path angles onto a card held against the patients face. Measured with a protractor, the found angles are then transferred to the Condylator.

The Condylator's use for conventional complete and partial removable dentures and bridges is outside the scope of this paper but this information is easily available elsewhere. The efficacy of the articulator can be demonstrated that ill-fitting and under-extended complete dentures can be dramatically stabilised during mastication by experimentally keeping the defective bases and only replacing the posterior teeth using the Condylator. <sup>(1)</sup>

The Vario version of the articulator has innovative adjustable side plates with an engraved sliding Vernier 0.0mm to 1.2mm measurement scale. Where appropriate these plates are adjusted to relieve compression in one or both TMJ's. Figure 4a and 4b. This adjustment is used mostly in the treatment of TMD and after orthodontic treatment and fixed prosthodontic work which can cause compression of the one or both joints.

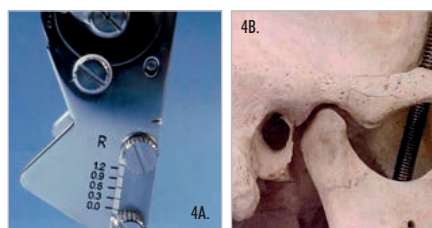


FIGURE 4A. Sliding side plates with measurement scale to relieve compression of the TMJ's. FIGURE 4B. The natural condyle head in a position of centric relation in its Glenoid fossae.

## IMPLANT RETAINED OVERDENTURES

Typically, these consist of two free-standing dental implants with or without connecting bar. The prosthesis can be directly connected to the head of the implants by prefabricated retainers or by spring clips grasping the implant connecting bar.

Dental implants are designed to receive masticatory loads along their long axes and transmit these to their supporting bone in the same direction. They are not designed to withstand lateral forces which can damage their internal screw parts and/or retaining clips. Occlusal forces falling on posterior teeth set over sloping bone foundations are resolved by moving the lower denture in an anterior direction. Such forces can produce damaging implant loading and retainer clip fracture. Figures 5a and 5b.

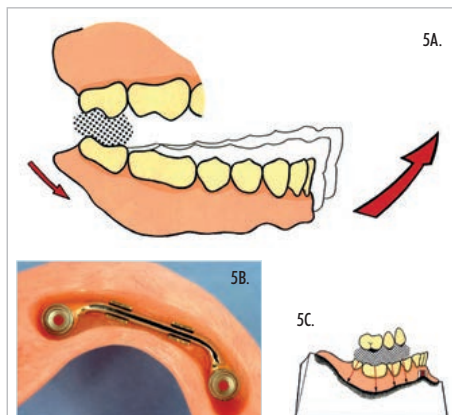


FIGURE 5A: Posterior teeth set over a sloping part of the ridge encourages the denture to move forward when food is between the dentures. FIGURE 5B: Broken overdenture retaining clip caused by repeated forward denture movement during eating. FIGURE 5C: Stability during mastication is improved if the lower teeth follow the curve of the lower ridge. This ensures that occlusal forces are always at right angles (90 degrees) to the surface of the underlying bone.

In edentulous mandibles, the teeth are confined to the flatter parts of the residual alveolar ridges; especially when these are resorbed. Posterior teeth of whatever occlusally balanced refinement which are set over an inclined bone foundation will not prevent this forward propulsion. By this reasoning it is better to omit a posterior tooth if its presence it would cause denture instability. Posterior teeth are arranged so that their collective occlusal surfaces form a curve which follows the curve of the residual lower ridge.

The objective is to direct the maximum occlusal loads over the 'lowest' part of the ridge and at right angles to the ridge overall. Figure 5c. That this rationale aids stability is confirmed at the chairside by the dentist applying strong finger pressure to the occlusal surfaces of all teeth at the try-in stage. Without connection to its implants, the denture should not move by this test so ensuring stability during eating.

Setting-up in this way is possible because conventional compensating curves are not needed with the Condylator; teeth are occlusally balanced using TMJ guided mandibular movement alone, without incisal guidance. <sup>(2)</sup>

## IMPLANT RETAINED AND SUPPORTED PROSTHESES

Depending on their design these can restore full biting power even to previously edentulous jaws. In providing reliable long-term prosthesis stability it can be thought that the strength and durability of dental implants is sufficient

to reduce the importance of occlusion. This is a dangerous misconception. Osseointegrated implants have a direct connection with their supporting bone and unlike natural teeth, cannot adjust themselves to accommodate occlusal errors. Occlusal forces are taken directly to the bone and these forces are higher when the occlusal surfaces are metal or porcelain.

When provided with an occlusion formed by a natural envelope of mandibular movement, fixed implant supported prostheses can both maintain the TMJ's in their physiologically correct positions and provide safe bearing of the prosthesis. Without safe-bearing, fixed implant supported prostheses can cause implant failure and bone loss. <sup>(3)</sup> This is especially the case when newly osseointegrated implants are to be loaded for the first time and the supporting bone is still remodelling.

## Lauritzen Split-Cast Method for TMJ Dysfunction (TMD). <sup>(4)</sup>

An important part of the assessment of TMD is to determine the positions of the natural condyle heads in their joints when the natural teeth are maximally intercuspated. Revealed by the Lauritzen split-cast technique can be condyle head displacement including compression and distraction of one or both joints. For many patients, this condylar displacement on occluding their teeth or when eating is the seat of their TMD. It is the bringing together into congruity the teeth and joints which forms an important part of TMD treatment.

Having first found the TMJ centric position of both joints, plaster check-bites are made of the teeth in centric relation. The maxillary cast then has several sharply angled cuts made into its base and separator applied before mounting both casts on the Condylator using the checkbites. On removing the checkbites, the articulator is then closed to bring the teeth into intercuspation. If the position of centric relation of the TMJ's and maximum tooth intercuspation coincide then there will be no separation between the articulating plaster and the maxillary cast. Figure 6a. If however there is a discrepancy between centric relation of the TMJ's and the intercuspation of the teeth, this will be shown by a gap between the articulating plaster and maxillary cast. Figure 6b. When this gap is held closed, bringing the teeth into maximum intercuspation in the articulator, the artificial 'condyle heads will move to reveal the position necessary for them to accommodate the occlusion of the teeth.

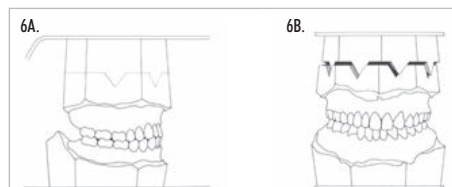


FIGURE 6A: Unchanged maximum intercuspation of the teeth with both TMJ's in positions of unchanged centric relation. FIGURE 6B: Maximum intercuspation requiring the TMJ's to be displaced as revealed by the space between the maxillary articulating plaster and upper stone model.



These condylar head displacements are revealed because the Condylator has 'Condyle heads' that are not restrained by fixed movement guides as in some articulators figure 7, but are free to move within a condylar aperture. Figure 8.

Such evidence provides a platform for TMD treatment therapy. It can also be used to assess the congruity of joints and teeth following orthodontic treatment and after the insertion of fixed prostheses.

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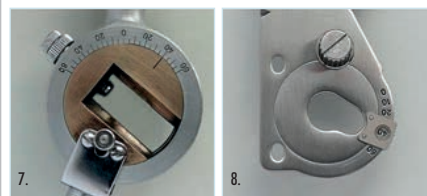


FIGURE 7: Parallel sided condyle head movement guides which provide fixed, straight-line control. FIGURE 8: The open condylar aperture which does not restrict condylar displacement accommodations.

### MAXILLO-FACIAL PROSTHESES

Patients with tissue-loss defects involving the face, teeth and jaws need prostheses which will durably restore what has been lost. Whatever the decided treatment plan, the preservation of the remaining hard and soft tissues supporting the prosthesis is an overriding consideration.

Maxillo-facial prostheses are now increasingly retained and supported by dental implants rather than the adhesives and spectacle frames of yesteryear. Depending on the position and size of the defects, implants may be placed anywhere where sufficient bone and bone quality will allow, including irradiated bone. Figure 9a. When available bone is remote or sparse, its damage by prosthesis overload is a major catastrophe which can severely limit future treatment options. The smooth gliding tooth contacts produced by the Condylator are exploited to the full to protect the TMJ's and reduce damaging occlusal loads falling on the implants, retaining clips and bone. That compensating curves and other mechanical rules of setting-up teeth do not apply is a big advantage when setting up for these difficult cases. Figures 9b, 9c and 9d.

Patients needing maxillo-facial prostheses do so when surgery is not possible, or has

failed. The loss of remaining bone and/or implants can serve to only to magnify a patients' feelings of misfortune.



FIGURE 9A: In large defects, implants will have to be placed wherever there is accessible bone. FIGURE 9B: Four implants with connecting bars and retaining clips. FIGURE 9C: Under-side of obturator prosthesis showing retaining clips. FIGURE 9D: Completed implant-retained and supported obturator prosthesis.

In some cases occlusal load may be shared between the implants and soft tissues when complete implant support is not possible. Here some denture movement under load must be accepted and the teeth organised to minimize underlying bone overload. This is especially important when new implants are supported by newly osseointegrated bone.

This work is subject to frequent patient recall reviews which may extend over many years. Convenient for this is that the articulator's manufacturing number is automatically recorded onto articulating plaster. By this simple device archived work can be returned to the same articulator to maintain accuracy.

### ORTHODONTICS

For good reason, Orthodontics is increasingly concerned to know the positions of the TMJ's before and after treatment. There is a substantial and worrying literature that draws attention to the onset of TMJ dysfunction (TMD) as a consequence of orthodontic treatment and especially so when there has been a change of jaw relationship.

Conventional study casts show before and after tooth movement but not before

and after positions of the TMJ's following tooth movement. Its self-evident is that an altered occlusion will have effect on the temporomandibular joints. Using the Lauritzen Split-Cast technique, the intercuspation of the teeth existing when both TMJ's are held in their positions of centric relation can be compared before and after and if necessary during treatment. <sup>(5)</sup>

### Conclusion and summary

The Condylator is the foundation on which all dentistry rests. Because the Condylator can reproduce the envelope of mandibular movement made by natural temporomandibular joints, the articulator is still relevant, seven decades after its introduction. In 1973, it was said that the Condylator was the first of a second generation of articulators. Although it now has its look-alike imitators, it probably still is.

### Acknowledgement

I wish to thank Mr Christopher White, Senior Maxillo-facial Prosthetist at the London North West Healthcare NHS Trust for providing figures 9a, 9b, 9c and 9d.

**Dr. Graham E. White. CCOM, PhD, MMedSci, FCGI. Former Senior Lecturer, School of Clinical Dentistry, University of Sheffield. Email: g.e.white@sheffield.ac.uk**

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- (2) The Gerber articulator and system of full denture construction. White G.E. Part 1. The Condylator Articulator. Dent Tech. 1973; 26, 2: 12-20. The Gerber articulator and system of full denture construction. White G.E. Part 2(a) Dent Tech. 1973; 26, 3: 23-27. The Gerber articulator and system of full denture construction. White G.E. Part 2(b) Setting up the teeth and finishing the dentures. Dent Tech. 1973; 26, 4: 34-39.
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- (5) Orthodontics and the Temporomandibular Joints. White G.E., Dubojska A.M. QJDT. 2007; 5, 3: 192

## DR GRAHAM E. WHITE CCOM. PHD. MMEDSCI. FCGI.

- Graham White holds C&G final and advanced certificates in dental technology and was a chief C&G examiner in dental technology for Great Britain and eight overseas countries. He has Master of

Medical Science and Doctor of Philosophy degrees by research.

For many years a Senior Lecturer in Dental Technology at the Dental School in Sheffield, he also had a diplomatic appointment with a consulate in Sheffield.

Author of numerous research papers,

his best-selling Quintessence book 'Osseointegrated Dental Technology' was translated into four languages.

Graham has given over 250 invited lectures world-wide on his research and represented Great Britain at international meetings of the International Organization for Standardization (ISO) for casting gold alloys, casting investments and dental implants.





# Najaarssymposium

13 oktober 2018

## Mijn patiënt neemt medicatie, wat nu?



*Prof. Dr. Em. J. Vanobbergen (UGent)*

*Prof. Dr. T. Christiaens (UGent)*

*La Reserve Knokke*

### PROGRAMMA

9:00u- 10:30u

- **Voorschrijfprofiel van de Vlaamse tandarts**  
Het voorschrijfprofiel van de Vlaamse tandarts in de recente jaren wordt doorgeleefd (*prof. dr. J. Vanobbergen*)
- **Wat zijn mogelijke nevenwerkingen en interacties wanneer wij als tandarts NSAID's of antibiotica voorschrijven?**  
Soms wordt te weinig stilgestaan bij de nevenwerking en de interactie van geneesmiddelen die toch veel gebruikt worden in de tandheelkundige praktijk. Daarnaast zal worden stilgestaan bij relevante aandachtspunten voor tandartsen bij specifieke patiëntengroepen. (*prof. Dr. Christiaens*)

11:00u-11:30u

- **Wat zijn de evidence based richtlijnen voor tandheelkundige behandelingen bij patiënten die anti-co medicatie nemen, bisfosfonaten, denosumab, ...**  
Enerzijds is er de vergrijzing van onze maatschappij en anderzijds zijn er de laatste jaren betere inzichten verworven die geleid hebben tot evidence based richtlijnen inzake tandheelkundig handelen bij patiënten die onder chronische medicatie staan. Vandaar het belang van een goede medische anamnese en een onderbouwd behandelplan dat rekening houdt met deze patiëntenkenmerken. Binnen deze lezing zal worden stilgestaan bij de deze aspecten van zorgverlening.  
In diezelfde context is er heel wat evolutie in de benadering van wortelcariës. Wat met fluoride gebruik als medicatie? (*prof. dr. J. Vanobbergen*)
- **Kan de BCFI website ons leven vergemakkelijken?**  
Het Belgisch Centrum voor Farmacotherapeutische Informatie heeft een zeer goed uitgebouwde website: [www.bcfi.be](http://www.bcfi.be)  
Daarenboven is er ook voor tablet/smartphone een versie voorzien en is er ook een gratis App voor Android en IOS (Apple). Deze digitale middelen kunnen uitstekende hulpmiddelen zijn in het dagelijks werk van de tandarts. (*prof. dr. Christiaens*)



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# Effects of chlorhexidine gluconate oral care on hospital mortality: a hospital-wide, observational cohort study

## Authors and affiliations

Mieke Deschepper, Willem Waegeman, Kristof Eeckloo, Dirk Vogelaers, Stijn Blot  
[Email author](#)

## Abstract

### Purpose

Chlorhexidine oral care is widely used in critically and non-critically ill hospitalized patients to maintain oral health. We investigated the effect of chlorhexidine oral care on mortality in a general hospitalized population.

### Methods

In this single-center, retrospective, hospital-wide, observational cohort study we included adult hospitalized patients (2012–2014). Mortality associated with chlorhexidine oral care was assessed by logistic regression analysis. A threshold cumulative dose of 300 mg served as a dichotomic proxy for chlorhexidine exposure. We adjusted for demographics, diagnostic category, and risk of mortality expressed in four categories (minor, moderate, major, and extreme).

### Results

The study cohort included 82,274 patients of which 11,133 (14%) received chlorhexidine oral care. Low-level exposure to chlorhexidine oral care ( $\leq 300$  mg) was associated with increased risk of death [odds ratio (OR) 2.61; 95% confidence interval (CI) 2.32–2.92]. This association was stronger among patients with a lower risk of death: OR 5.50 (95% CI 4.51–6.71) with minor/moderate risk, OR 2.33 (95% CI 1.96–2.78) with a major risk, and a not significant OR 1.13 (95% CI 0.90–1.41) with an extreme risk of mortality. Similar observations were made for high-level exposure ( $> 300$  mg). No harmful effect was observed in ventilated and non-ventilated ICU patients. Increased risk of death was observed in patients who did not receive mechanical ventilation and were not admitted to ICUs. The adjusted number of patients needed to be exposed to result in one additional fatality case was 47.1 (95% CI 45.2–49.1).

### Conclusions

These data argue against the indiscriminate widespread use of chlorhexidine oral care in hospitalized patients, in the absence of proven benefit in specific populations.

*Intensive Care Med*

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where the truth lies

10:45 - 12:15

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how surfaces affect integration

**Prof. Chandur Wadhvani**  
University of Seattle, USA



14:00 - 15:30

Brilliant and sustainable pink aesthetics  
through immediate and minimally invasive  
shaping of the peri-implant soft tissue

16:00 - 17:30

The Socket Chamber Concept:  
Clinical Outcomes of Immediate  
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**Prof. Paul Weigl**  
University of Frankfurt, Germany



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NWVT CURSUS 11 OKTOBER 2018

## OCCLU SENSE OF NO SENSE

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### LOCATIE

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### PROGRAMMA

- 19.00 Inloop en registratie (*Koffie, thee, fris*)
- 19.30 Uitreiking NWVT TP Master Scriptie Prijs
- 19.50 Peter Wetselaar  
*Het belang van een goede occlusie*
- 20.40 Pauze
- 20.55 Hugo Vreugdenhil  
*De klinische toepassing van de T-scan, het meten van de timing van het tandcontact*
- 21.45 Einde en afsluitende borrel

### MEER INFORMATIE EN AANMELDEN

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**PETER  
WETSELAAR**

Studeerde in 1986 als tandarts af aan de Universiteit van Amsterdam. Sindsdien is hij werkzaam in een algemene praktijk (tevens Verwijspraktijk) samen met zijn echtgenote en collega Miranda Wetselaar-Glas in Heemstede. Van 2004 tot 2007 volgde hij de postnitiële opleiding Orale Kinesiologie aan het Academisch Centrum Tandheelkunde Amsterdam (ACTA).

Sinds 2011 is hij Chef de clinique van de stafkliniek Orale Kinesiologie van het ACTA, sinds 2016 is hij hoofdopleider van het uitstroomprofiel Orale Kinesiologie van het Postgraduate Masters Programme in Oral Health Sciences.

In 2016 promoveerde hij op het proefschrift the Tooth Wear Evaluation System: development and applications aan de Universiteit van Amsterdam. Hij is erkend als tandarts-gnatholoog door de NVGPT, als restauratief-tandarts door de NVVT en als tandarts-slaapgeneeskundige door de NVTS.



**HUGO  
VREUGDENHIL**

Na zijn Gymnasium-B examen in Krimpen aan den IJssel studeerde Hugo Vreugdenhil tandheelkunde aan de UvA. De militaire dienstplicht vervulde hij als tandarts en aansluitend werd hij eigenaar van een tandartspraktijk in Geldermalsen. Hij volgde de gnathologie opleiding aan het UMC Utrecht en werd benoemd tot tandarts gnatholoog.

Zijn praktijk is uitgegroeid tot een multidisciplinair tandheelkundig centrum met een tandtechnisch laboratorium. Vreugdenhil Tandartsen is een verwijsadres voor gnathologie, implantologie, endodontie, prothetiek en gebitsrehabilitatie.

De speerpunten van Vreugdenhil Tandartsen zijn preventie, kwaliteitsborging en samenwerking. Naast zijn werkzaamheden als tandarts is Hugo trompettist in een jazzkwintet in Amsterdam.

Wij plaatsen deze mededeling van onze zustervereniging in Nederland op hun verzoek. Zij bieden aan om onze leden aan dezelfde voorwaarden te laten deelnemen aan hun activiteiten.

Hugo Deleaye prijs 2018  
uitreiking te Leuven

Laureate: Steffi Borgers  
Onze welgemeende felicitaties



## PEER REVIEW

### Vergaderingen 2018

#### West Vlaanderen

**Combi sessie 7/8:**

donderdag 6 december om 10.00u

**Coördinator:** Kris Lenoir

**E-Mail:** ict@vwvt.be

**Telefoon:** 050 71.26.57

**Locatie:** "Di Coylde" Beernem

**Combi sessie 9/10:**

donderdag 19 oktober om 10.00u

**Coördinator:** Luc De Maesschalck

**E-mail:** ict@vwvt.be

**Telefoon:** 051 30.40.17

**Locatie:** "Hotel Mercure" Roeselare

#### Oost-Vlaanderen

**Combi sessie 19/20**

donderdag 11 oktober om 10.00u

**Coördinator:** Eric Vandenoostende

**E-mail:** ict@vwvt.be

**Telefoon:** 09 230.10.93

**Locatie:** "Patyntje" Gordunakaai, Gent

#### Vlaams Brabant

**Combi sessie 11/12:**

dinsdag 11 september om 16.00u

**Coördinator:** Marc Quisthoudt

**E-Mail:** ict@vwvt.be

**Telefoon:** 02 377.55.84 of 02 520.52.79

**Locatie:** Eetcafe d'Akte te Sint Kwintens Lennik

#### Antwerpen

**Combi sessie 23/24**

vrijdag 12 oktober om 10:00u

**Coördinator:** Margot Mys

**E-mail:** ict@vwvt.be

**Telefoon:** 03 825 85 88

**Locatie:** Royal Beerschot Tennis & Hockey club, Antwerpen

#### Limburg

Deze sessie heeft reeds plaats gehad

**Coördinator:** Herbert Renders

**E-mail:** ict@vwvt.be

**Telefoon:** 0475 926794

**Locatie:** Het Koetshuis, Bokrijk

VOLG ONS OP FACEBOOK:

<https://www.facebook.com/>



Bedankt voor je bezoek!