

*Whitening  
shouldn't be  
frightening!*



Haarlem  
June 2017

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# WHITENING CONGRESS

## Whitening deserves its place in the dentist's repertoire

An international congress about tooth whitening was organized by Cavex in the Netherlands on the 16th of June under the banner: 'Whitening shouldn't be frightening!'. The aim of the congress was to provide an overview of the latest developments in the scientific domain and demonstrate that whitening has become a frequently applied treatment in cosmetic dentistry in an increasing number of countries. Whitening materials are the focus of Cavex and we want to be a leading manufacturer.

Cavex works with its partners on a global market and we are aware that there are many different whitening concepts offered in the various regions. It is sold through dentist and over the counter, there are in office treatments as well as home whitening. The European guideline that limits hydrogen peroxide to a maximum of 6% applies in the Netherlands, but higher percentages are



sometimes permitted in other countries, including the United States. The challenge is there for our company to select the right products for our portfolio.

The congress was organised by Cavex, we opted for Schouwburg de Philharmonie in the historic home city of Haarlem as the venue. Some 250 participants were welcomed to the wonderful ambiance of this lovely building, which includes a spacious and atmospheric lounge featuring standing tables and a variety of

seating, plus, of course, a well-appointed modern conference room. With speakers from six countries and participants from thirteen, including the Netherlands, Belgium, Mexico, Italy and Latvia, this was a truly international congress.

Prof. Dr. Joost Roeters, the congress moderator joked: 'They may have invited me to perform this role because I am the professor with the whitest hair...', but the real reason is undoubtedly that he, as a professor at ACTA, has in-depth expertise in the field of restorative dentistry in general and whitening in particular. Tooth whitening dovetails perfectly with the 'Dynamic Treatment Concept' and 'Minimal Invasive Dentistry' of which Roeters is a keen advocate, as were all the speakers at the congress, where the emphasis was on the whitening of vital elements.



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**Joost Roeters** : Tooth Whitening is the most conservative esthetic procedure. Whitening of teeth fits in the concepts of 'minimal invasive dentistry' and the 'dynamic treatment concept'!!



characteristic of a bright smile. Gurgan, a member of the Faculty of Dentistry at Hacettepe University in Ankara (Turkey), quoted a study conducted by the American Academy of Cosmetic Dentistry (AACD), which concluded that a smile is perceived as particularly unappealing if it displays discoloured or yellow teeth. According to another conclusion from the same study, when discussing cosmetic dental treatment, patients under the age of twenty tended to ask about whitening first, with questions about orthodontics or white fillings coming only later. Sevil Gurgan showed many examples with "before" and "after" pictures, showing the result she obtained with various whitening systems

based on 6% hydrogen peroxide. Prof. Dr. Gurgan expressed how important the effect of a desensitizer is on a whitening system to ensure that whitening isn't frightening! We were proud to see so many great examples obtained with various Cavex whitening systems. She achieved great results with the Cavex Bite&White Impact kit, the Ready2Use and even with the Cavex whitening pen! In her presentation Dr Gurgan explained the effect of whitening on restorative materials. One of her recommendations is that dentist renew insufficient restorations prior to bleaching in order to achieve an optimal seal of the pulp chamber and thus reduction of the risk of adverse effects.

Did Hillary Clinton lose the presidential election because she didn't have shining white teeth, whereas Donald Trump flashed a dazzling wide smile? Prof. Dr. Sevil Gurgan suggested as much – albeit somewhat tongue in cheek – showing photographs in which the dental array of one candidate outperformed that of the other.

This question will obviously never be answered, but it is clear that whitening has been gaining in popularity in recent years. Aesthetics are an important element, and a bright smile is key. To many people, white teeth or teeth with a natural colour are



**Sevil Gurgan** : Bleaching agents may cause structural changes on restorative materials!!



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## Linda Greenwall : Extension of whitening (in age and time) is sometimes necessary!!

Dr. Linda Greenwall, an authority in the field of tooth whitening in the UK working at Guy's Hospital in London and the author of a number of standard reference books about whitening and cosmetic dentistry, has also noticed that many of her patients want a brighter and more appealing smile and that whitening is definitely an option.

She applies medical or therapeutic whitening treatments, for example, if a patient's teeth have become brown or discoloured as a result of illness or an ongoing medical condition. This can have a significant impact from a social perspective, and whitening the teeth may offer a partial solution. At the same time, Greenwall issued a warning about people who take things to extremes and suffer from 'bleachorexia', as she calls it.

Another interesting fact Dr. Greenwall mentioned is the day 3 rule: if any sensitivity does occur it is at its maximum at day 3 due to maximum saturation of oxygen in the canal. According to Greenwall, a whitening procedure may lead to healthier gums and improved oral hygiene simply because increased attention is paid to the teeth. Whitening often also increases people's self-confidence. Whitening can also lead to a reduction in caries, although this has not yet been established scientifically

Is whitening an option for children's teeth? This was the most interesting question for the panel. Whitening for children is prohibited by law, but the speakers seemed to agree that it provides a very good treatment option at times, for example, if

children suffer severe bullying because of their discoloured teeth. It is sometimes almost unavoidable, for example, prior to orthodontic treatment. From an ethical point of view, the speakers did not seem to have a problem with treating children. This may well be because they are convinced that whitening is effective and predictable, can be performed safely and easily, is non-invasive and can be carried out at reasonable cost. Broadly speaking, these conclusions were shared by the speakers at the congress, whether implicitly or explicitly.

***It was indeed clear to them that whitening shouldn't be frightening***

Papathanasiou always provides extensive instructions about the use of any kit that a patient takes home, so they know exactly how to use it. And she never provides more gel than will be needed before the next follow-up appointment to ensure that patients return on time for consecutive treatments. She advises her patients to bring their materials with them to the practice so that they can be checked for proper use.

When is whitening an option? According to Greenwall and Papathanasiou: in the event of yellowish or greyish teeth due to ageing, fluorosis, minor discolouration, tetracycline discolouration, surface discolouration, discolouration due to iron supplements or chlorine (something that occurs frequently with swimmers) and calcified teeth.

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Full whitening treatments can also be performed under controlled conditions in dental practices. This can make treatment expensive, because patients will occupy a chair for a relatively long time. Another option is whitening at home under the supervision of a dentist, with the patient attending a number of sessions in the practice to monitor the process. This was definitely the preferred combination of the speakers at the congress.

According to Prof. Dr. Katerina Papathanasiou (Department of Prosthodontics at Tufts University School of Dental Medicine in Boston, USA), this treatment method ensures the best long-term results with the shortest possible treatment times.

Whitening is to be discouraged in the following situations: receding gums, cervical lesions and apical blackening, hypersensitive teeth, allergy to hydrogen peroxide, dry mouth symptoms and intensive smoking or use of tobacco, among other things. Nor is a whitening procedure an option during pregnancy and breastfeeding.

Special attention is also required for sensitive teeth, extremely dark gums that are exposed when smiling, extremely white patches, bruxism, TMJ dysfunction or translucent teeth.



## **Katerina Papathanasiou : Jump-start the treatment with In-office Bleaching (“boost”), followed by controlled At-home. In-Office & At-Home are complementary!!**

***The best-known negative effective of whitening is a temporary sensitivity of the teeth.***

The Italian Dr. Giacomo Derchi, who works at the University of Genoa, Italy, and also as a practising dentist in La Spezia, explored this theme. He confirmed that people want to achieve the end result of a bright smile quickly – if not immediately – at minimal cost and without pain. Meeting these demands is not an easy task, for example, sensitive teeth

may pose a problem during whitening, especially in terms of cold and heat around the root extremities.

It must be pointed out that, thanks to the incorporation of desensitisers into the whitening gel, tooth sensitivity can be managed better these days. According to Derchi, future solutions should, in particular, be sought in bioactive and biocompatible materials combined with proper oral hygiene.

Derchi has obtained very good clinical results with products



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based on hydroxyapatite (Cavex Bite&White ExSense, yes indeed we are proud about the great scientific proof obtained with our product in this study) Dr Derchi's flamboyant presentation style earned him applause worthy of an opera singer. During the panel discussion at the end of the lectures, the question was raised of whether whitening toothpastes are a sensible option. Derchi's opinion is that they don't appear to work, that they are too aggressive and cause premature wear. His conclusion: a 'fake bleaching effect'.



**Giacomo Derchi: HAP (ExSense) is an effective desensitizing agent!!**

In his lecture 'Light & White: From standard light activation to laser whitening', Prof. Dr. Roeland De Moor (University of Ghent, Belgium) explored the use of bleaching lights in the whitening process. Based on scientific research, he concluded that such lights do not actually effect the whitening process. Photothermal lights do have a positive effect, however, if the whitening gel includes photosensitisers. In addition, the LED laser and KTP laser are effective in the whitening of tetracycline discolouration in dentine, whereby KTP is the most effective, and whitening using a laser lamp reduces the duration of the whitening process.



**Roeland DeMoor : Light does not contribute to whitening!!**

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Whitening treatments can be performed in various settings. Whitening materials are freely available from chemist's shops, and users can proceed to treatment at home. It is clear that experts are not in favour of this approach. Treatments in 'whitening shops' don't meet with their approval either – and rightly so. Such shops frequently fail to respect the correct hydrogen peroxide percentage; dentists are generally not involved; coconut oil, sunflower oil and abrasive products are often used; payment is required in advance and complaining is often difficult, according to Dr. Nils van Calcar, who works at the ACTA Amsterdam as a cosmetic and restorative dentist. It is scary to see what people experiment with on their teeth: trying to save money they use high abrasive products with a low pH. Another reason why it makes sense that a professional is assisting the consumer to make the right choice that fits with the individual situation and lifestyle.

Van Calcar provided a recap of the involvement of the dentist in such treatments. Before the whitening treatment starts a proper diagnosis, supported by X-rays among other things, must be made. The dentist must check whether the teeth are vital and make sure there is no apical blackening, because these may cause a lot of pain during the whitening process.



## **Nils van Calcar : Whitening is effective, safe, predictable and long-lasting!!**

In addition, the dentist will have to establish the impact of the whitening on existing restorations; in short, they must arrive at a realistic prognosis of the result to be expected on the basis of their findings. It is also necessary to establish whether the patient has sufficient self-discipline and competence to perform the whitening treatment at home in accordance with the procedure.

Patients must keep their teeth clean by thorough brushing, they must know how to handle the materials, and be able to keep a bit in their mouth for between forty and sixty minutes at the end of the day. They must also be prepared to refrain from eating and

drinking before going to sleep. This must be maintained for several weeks, or even months. This requires a lot of commitment from patients, and not all of them will be able to stick to the regime.

Good communication with the patient is therefore of the essence. Patients must know what to expect, be aware of the pros and cons, know the risks and agree to the treatment according to the principles of informed consent, says Greenwall.

The Cavex marketing will be challenged in future to help the dentist to provide the right information



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## Additional tips from the speakers

- Wait at least two weeks before beginning a whitening treatment following a tooth cleaning operation.
- Whitening of dark teeth or serious discolouration takes longer.
- Consumption of sour-sweet fruit and carbonated drinks, black coffee and red wine are discouraged during the whitening procedure, as is smoking.
- Be alert to the vitality of the elements during the whitening process.
- In general, teeth are most sensitive on the third day of the whitening process. Prepare patients for this. You can even exaggerate slightly, so that when it happens it is not as bad as expected.
- Local anaesthetics, drilling and etching are not used during the whitening procedure.
- Keep the whitening time as short as possible to minimise potentially harmful effects.
- Whitening provides a good opportunity to discuss the complete tooth-care plan.
- Establish limits for people who are suffering from 'bleachorexia'.
- Wait two weeks after a whitening procedure before performing any restorative or invasive treatments.

## Response from participants:

- Hans Koper (dentist in Tilburg, the Netherlands): 'I was eager to find out about new market developments for whitening, current methods and what is legally permitted'.
- Gerdine Terwindt (dentist in Utrecht and Maarsse, the Netherlands): 'There is a lot of demand for whitening from patients and I find that, in our ageing population, more older people are interested as well. I want to know about the latest developments so that I can offer the appropriate treatment. Other than that, the idea of an international congress with speakers from countries where whitening is widespread appealed to me'.
- Bernardo Nazar and Victor Said Flores (Cavex distributors in Mexico): 'We are here to be fully informed about the latest materials and products'.
- Dirk Staes (postgraduate teacher of aesthetic dentistry at the Free University of Brussels, Belgium): 'Every year, some thirty of our dentists and students attend an interesting congress. More particularly, I wanted my group to meet Joost Roeters, who has written an outstanding standard reference book about aesthetic dentistry. We obviously also like to be up to date on the newest developments in whitening.'
- Diana Uruen Snchez (Spanish dentist, working in Breda, the Netherlands): 'I was persuaded by a colleague to come because this is an interesting congress'.
- Frank Romeijn (dentist in Haarlem, the Netherlands): 'I like the idea of whitening treatments and wanted to hear more about them. It turns out they are far less harmful than I had always assumed. Indeed, many other materials that we routinely apply in the mouth may be more harmful'.

Cavex facilitated this day to ensure that we create discussion among the dental profession about whitening. Whitening treatments are very common in several parts of the world, in the USA we notice the bleachoraxia. In other countries whitening

is still considered to be frightening: both by dentist and consumers. Our challenge is to make sure "whitening shouldn't be frightening", Cavex will provide the right products and procedures to fulfil this mission. Together with our partners we like to

select the best options for your market. The whitening congress was our first step to underline the importance of science on the whitening treatment, we do hope to extend our know-how together with you!

# Cavex Bite&White ABC system

ACTIVATE - BRIGHTEN - CONDITION

Unique 3-step  
home whitening system



**Content Cavex Bite&White ABC Masterkit:**  
 1 tube of Cavex Bite&White StainLess 50g/35ml  
 3 x Cavex Bite&White 3ml syringe  
 1 tube of Cavex Bite&White ExSense tooth conditioner 50g/42ml  
 1 tray container, 1 instruction manual

- 100% safe
- Easy to follow 3-step system
- Only 1 hour a day
- Maximum result - no sensitivity

Cavex has developed the ABC-Whitening-System, where the ABC stand for “Activate,” “Brighten,” and “Condition.” Following these 3 simple steps, Cavex ensures a highly effective, safe and above all – a pain free whitening treatment.

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■ Cavex Holland BV, Fustweg 5, 2031 CJ Haarlem, The Netherlands. Tel +31 23 530 77 00 Fax +31 23 535 64 82 dental@cavex.nl www.cavex.nl