

A black and white photograph of an older man with a white beard and glasses, wearing a patterned jacket over a dark shirt. He is gesturing with his right hand. A large red circle is overlaid on the bottom left of the image, containing the text 'MUDr. Jiří Sedelmayer'.

# MUDr. Jiří Sedelmayer

Prevention Hero, Teacher, Mentor and Artist

**Dr Sedelmayer taught students restorative therapy, endodontics, periodontology and individual prophylaxis. Students appreciated how simple and clear he could explain complicated dental procedures. They would often stay after classes to listen to his lectures and to work with him on their patients.**

1986

In 1986, MUDR Jiří Sedelmayer graduated in Dental Medicine from the University of Hamburg, Germany, and spent the next 25 years as a clinical teacher and researcher at the UKE Hamburg (Department of Conservative dentistry and Periodontology, University Medical Centre Hamburg-Eppendorf).



Colleagues and students admired his practical and artistic skills, as well as his teaching methods. It came as no surprise that after graduating, many of them would invite Dr Sedelmayer to lecture in numerous events for dentists organised by the local dental chamber. Thanks to his talent in drawing, he made colourful and detailed illustrations for his lectures, often copied by attendees.

## **The ultimate improvement of oral health for all**

Jiří's focus and passion for prevention came during daily work with countless patients that came knocking on the door of the University clinic. Many patients that came had pain or swelling – no matter their age, sex, or socio-economic background – with the pathology caused by dental plaque, as a consequence of an insufficient or inadequate tooth brushing routine. He questioned his own work and the profession itself and thought about how to improve the oral health of his patients once and for all. Also, his students were a huge motivation for him – many of them had perfect results in difficult clinical subjects but they still were victims of caries and gum bleeding themselves.

Dr Sedelmayer conducted small empirical research and asked his own students to prepare and show him the Bass Technique in the upcoming class. The result was shocking but somewhat expected – ten different techniques were presented, as each dental student described something different to each other. Remembering that class, Dr Sedelmayer said: “Of course we couldn’t ask Dr Bass about which technique is the right one because he was already dead”. He went deeper into the research just to conclude that unlike other areas of dentistry, prevention doesn’t have clearly defined principles and criteria on which proper biofilm management is based. For him, this was a sign. He decided to develop a unique teaching method, based on clear criteria and empirical data.

## The beginning of Touch 2 Teach

Dr Sedelmayer developed a programme to teach his students optimal oral hygiene techniques – a programme that would take its final form in 2006, when it became iTOP. The difference between iTOP and other programmes was the so-called Touch 2 Teach component – all the techniques were practiced hands-on, in the mouth, like in any other area of dentistry. He taught the students new approaches to prevention education and then engaged them in interesting practical examinations. Students would have to teach their colleagues optimal oral hygiene techniques and then the “patient” would demonstrate what they had learned. If the technique was correctly demonstrated, the student who taught their colleague would pass the exam.

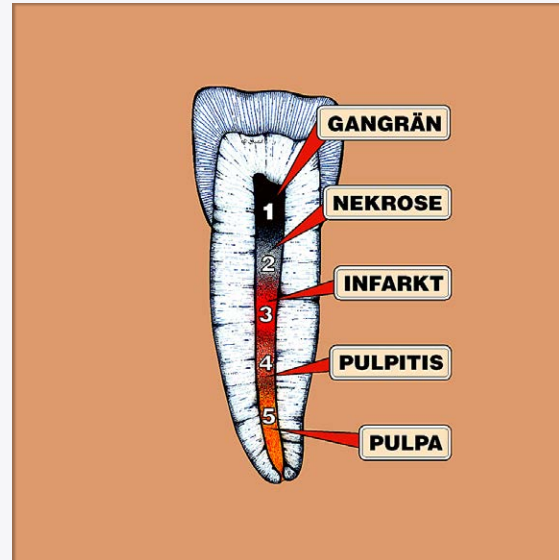


Amalgam Fillings with perfect morphology, Dr. Jiří Sedelmayer

1990



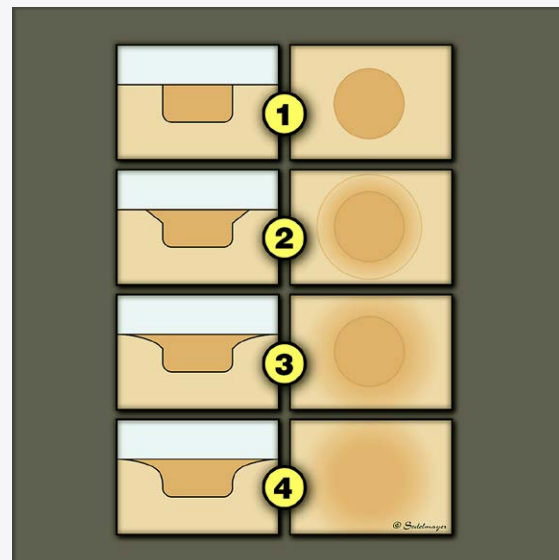
# 1990



**Endodontic Class**  
Reaction in Pulp Chamber,  
Dr. Jiří Sedelmayer



Practical exam of dental students in prophylaxis,  
UKE Hamburg, left student as patient, in the centre student  
on exam, right Dr. Sedelmayer.



**Restorative Therapy**  
Class Preparation and Aesthetic,  
Dr. Jiří Sedelmayer

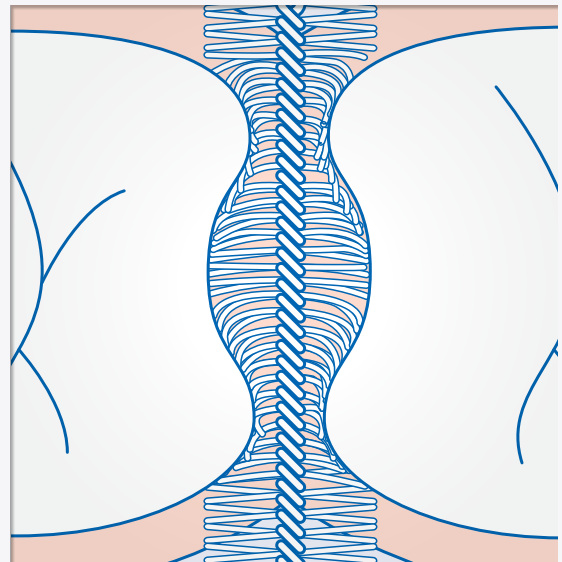
## New perspective of interdental cleaning

Dr Sedelmayer was not just committed to the development of optimal oral health techniques. He also understood the need for effective oral care devices. After diagnosing his own student, an 18-year-old (Monika) with interproximal caries – who reported to have regularly used both floss and a toothbrush – he started his research.

He became more interested in devices to take care of interdental spaces and this is where he started his research with interdental brushes, especially their usage on people with closed interdental spaces. This led Dr Sedelmayer to develop the **first generation of CPS Prime (interdental brushes for closed interdental spaces) brushes, the Interdental Access Probe** and a **bleeding index** that was a modification of the Eastman index – instead of a toothpick, one would use an interdental brush to initiate interdental bleeding<sup>1</sup>. Later, Dr D. Hofer (Department of Preventive Dentistry, Cariology, and Periodontology, University of Zurich, Switzerland) introduced this index within the literature<sup>2</sup>.



Dr. Sedelmayer's illustration on necessity of an interdental brush.



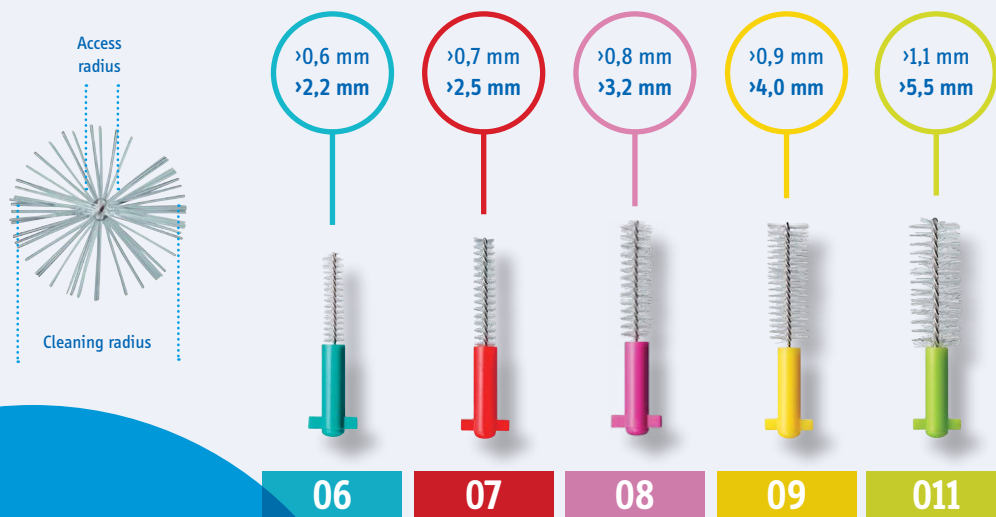
Dr. Sedelmayer's illustration - proper size of interdental brush and proximal concavity

1999

During his time at university, Dr Sedelmayer included **600 students** in practical research about their own BIOB (brushing on interdental bleeding) index. Upon first measuring, **85%** of bleeding spaces overall were found after the first week of regular usage of interdental brushes. This result reduced to **42%**, then to **19%** the second week. After the third week, the BIOB index was only **3%**. These results showed that the bleeding reduced after regular usage of calibrated interdental brushes. His students and followers confirmed the thesis in their own research<sup>3</sup>.

## New generation of oral hygiene tools

Dr Sedelmayer did not stop there. The need for practical tools to achieve perfect biofilm removal was still there. Observing some oral health habits in different cultures motivated him to develop the single brush and **solo technique**, which is described today in Color Atlas of Dental Medicine: Periodontology by Rateitschak<sup>4</sup>.



New generation  
of interdental  
brushes





# 2006

The first official iTOP Seminar took place in December 2006., in Luzern, Switzerland. Each year, more than 4,500 dental professionals participate in iTOP seminars in more than 60 countries around the world - and these numbers just keep growing!

He dedicated a good part of his professional career to promoting oral health through developing **effective, non-traumatic and acceptable** oral hygiene techniques and tools – the pillars of his individually-trained, oral prophylaxis programme. It was through his passionate and relentless work that, in collaboration with Curaden, he co-developed a new generation of oral hygiene tools that meet high iTOP criteria.

One side of the puzzle was to test oral hygiene techniques and identify the most effective ones. The other side of the puzzle was determining how to transfer the knowledge and skills to patients. That is how Touch to Teach – hands-on training in oral prophylaxis – was established. Touch to Teach has a literal meaning: touch and guide the patient's hand to teach them the right technique.





# 2018

## Inspirational speaker

He advocated in dental communities the importance of the educational and coaching role of dental professionals towards patients. He believed that **“lifelong teeth preservation without unnecessary damage is realistic under the supervision of a highly qualified specialist who knows and is able to exercise effective, non-traumatic techniques and devices”**.

Dr Sedelmayer became known not only in Hamburg, but also in his own motherland. He was invited regularly to the Czech Republic to teach in dental congresses and lead practical courses. On 28th October 1995, Curaden CEO, Ueli Breitschmid, attended a lecture by Jiří in Prague at his invitation. More than 400 people followed the lecture breathlessly, laughed often and applauded feverishly in the end. In this single moment, Ueli said that he came to understand that he was dealing with a special person and decided for himself that, “This man can change the world - and I want to go this way with him”.





Logo for Society of Preventive Dentistry created by Dr. Jiří Sedelmayer in 1998

This only opened doors further. In August 1997, the first “Clean Teeth Week” took place in Zadov, Olympia – an iconic event where dental professionals gathered for a full week to work only on preventive techniques with their colleagues. In March 1998, the second “Clean Teeth Week” took place where a decision was made on the establishment of the **Society of Preventive Dentistry**. The actual establishment of the Society took place at the beginning of April 1998, and the name of the emerging association and its programme was created under the baton of Dr. Sedelmayer.

Dr Sedelmayer was a passionate promoter of the idea that examinations on prevention should be a prerequisite in order to graduate in dentistry.

“Just as you need good periodontists and endodontists to conduct the basic and advanced courses, instructors for preventive dentistry too need to be trained to examine students,” he stated.

Although officially retired, he was invited by the Dean of Charles University in Prague in order to design a six-week training course. The course included weekly lectures and six practical Touch to Teach sessions for first-year dental students. During the seventh practical session, students had to pass a test in order to complete the course. Jiří’s wife and partner, Dr Lucie Sedelmayer, has continued his work until this day and still teaches students regularly alongside other well-trained instructors.

## A true revolutionary

Dr Sedelmayer’s methods have been published both nationally and internationally, and he led more than 1,100 training seminars and courses worldwide. Dr Jiří Sedelmayer died in Prague on 6th July 2019, having lived a rich life as a researcher, teacher and family man. His legacy of iTOP, and his passion for aiming to perfect oral health, will continue to live on in each of iTOP’s advocates, speakers and instructors.

One of the authors of this text remembers that Dr Sedelmayer was teaching an iTOP seminar in Santiago de Chile University in 2009. After finishing his speech, one of the students shouted from the audience “Viva La Revolution!” and the whole auditorium started to cheer and clap their hands. It was one of the moments that would define who Dr Sedelmayer really was. A true revolutionary.

1. Neue Möglichkeiten der professionellen Interdental-  
raumpflege. Quintessenz Team-Journal 29:225-232, 1999,  
Deutschland
2. D. Hofer, P. Sahrman, T. Attin, P.R. Schmidlin / Center for  
Dental Medicine in Zurich - Comparison of marginal  
bleeding using a periodontal probe or an interdental  
brush as indicators of gingivitis  
<https://bit.ly/3mrLvmM>
3. Pauline H. Imai, MSc, and Penny C. Hatzimanolakis, MSc,  
Interdental brush in Type I embrasures Examiner blinded  
randomized clinical trial of bleeding and plaque efficacy  
<https://bit.ly/3mReEbN>
4. H. Rateitschak Color Atlas of Dental Medicine,  
Periodontology, Page 229 Dr Sedelmayer Solo Technique  
Czech Newspaper Articles about Dr Jiri Sedelmayer:  
<https://bit.ly/3k4fK1Y>  
<https://bit.ly/38fget8>  
Czech Society of Preventive Dentistry  
<http://zubari.cz/>



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