

Visit www.DeepL.com/pro for more information.

#### SCIENCE



Lutz Laurisch

## Successful implementation of preventive treatment concepts in practice



### **Quintessence for the practice**

The implementation of preventive treatment c o n c e p t s is not the task of the dentist alone. A unified appearance of the entire team ("corporate identity") is the prerequisite for successful communication with the patient, which in turn is the key to implementing the preventive practice concepts. The article provides information on the factors that could influence the success of the treatment.

#### **Summary**

Many individual parameters contribute to a successful preventive oriented dental office. Preventive thinking and acting is only one point of a successful practice. The motivation of all is required as well as a complete new organisation of the treatment process. The entire dental team and the in- dividual management style of the practice owner determine the successful implementation of preventive action and care concepts. The inner attitude

and motivation of all participants influences the authenticity of the overall appearance of the practice.

#### **Summary**

Many individual parameters contribute to a successful preventive practice. In this context, it is not only preventive Thinking and acting is the only prerequisite. The motivation of all those involved, the organisation of the treatment p r o c e s s, the entire practice team and the individual management style of the practice owner determine the successful implementation of preventive action and care concepts. The inner attitude and motivation of all those involved influence the authenticity of the practice's overall image.

■ **Keywords:** prevention, prevention concepts, practice organisation ■

#### **Preventive thinking**

The preventive-oriented practice is determined by the basic philosophy of disease prevention. It is taken for granted that

The dental practitioner is exposed to the fact that a clean tooth does not develop caries. However, the daily practice shows that it is easier to prevent the occurrence of carious lesions in the smooth and occlusal areas than in the approximal area.

It is not always sufficient to shorten the intervals between professional measures in cases of higher risk. Fluoride applications also cannot compensate for the patient's lack of compliance in both his hygiene efforts and his nutritional care. Changes in the caries risk are the result, carious changes in the tooth structure occur.

Due to the fact that the progression of an initial demineralisation to cavitation takes a longer period of time, the

If the treatment of demineralisation includes only a short period of time, the patient is not necessarily able to recognise the correlation between the faulty behaviour and the resulting consequences. However, it is precisely this time delay that offers preventive strategies in practice to treat demineralisation promptly in order to avoid cavitation.

In order to develop an individual prevention concept, more than just a clinical examination is needed. In order to determine the risk, it is also necessary to ascertain other individual factors. These include a dietary history with the aim of determining the sugar impulses between the main meals, the type and timing of the hygiene measures at home and a fluoride history.

In many cases, this information, which is easy to collect, must be supplemented by determining subclinical parameters, such as saliva pH, buffer capacity, secretion rate and the number of caries-relevant germs, e.g. the number of mu- tans streptococci and lactobacilli, using a suitable test procedure.

Knowing all these risk parameters, further steps can be taken depending on the topographical location of the demineralisation.

treatment steps are initiated. If purely preventive measures are no longer indicated due to these considerations, minimal restorative treatment steps are unavoidable.

In contrast to caries prevention, periodontal health cannot be influenced exclusively by supragingival plaque control in all cases. Individual parameters such as smoking, stress or diabetes as well as the genetically determined immune-inflammatory response of the host influence the occurrence and progredience of periodontal disease.

For prevention, this means that periodontal stability is not permanently ensured in all cases of periodontal disease. Risk diagnostic measures such as the determination of the genotype or inflammatory factors (e.g. interleukin 2 polymorphism) can help to determine the individual risk, optimise the therapy and assess the prognosis of the patient case (1). A special test indicates the onset of periodontal disease at an early stage determining matrix metalloproteinases, which on the one hand gives the practice the opportunity to intervene in time, and on the other hand makes the patient's own risk objectively clear.

This procedure may not be necessary for every periodontitis patient, but in particularly difficult or progressive cases it helps to make it clear to the patient that even with comprehensive therapy and preventive care, the prognosis of the case can be influenced by the individual risk parameters determined. At the same time, it helps to justifiably convey to the patient what treatment effort will be required in the future by the practice and the patient in order to establish and maintain an acceptable periodontal health status.

However, prevention does not end at the "patient level" - i.e. the "classical" prophylaxis. Preventive action at the "tooth level" means finding a prosthetic assessment for each tooth, taking into account preventive, conservative, orthodontic and prosthetic-restorative concepts (Fig. 1). Figure 1 shows which factors should influence the decision on the further treatment of tooth 27. Only after weighing all the advantages and disadvantages of different treatment options can a decision be made on treatment. However, this also means that the dental practice must be in a position detached from its own treatment preferences and specialisations - to make an objec-tive decision.

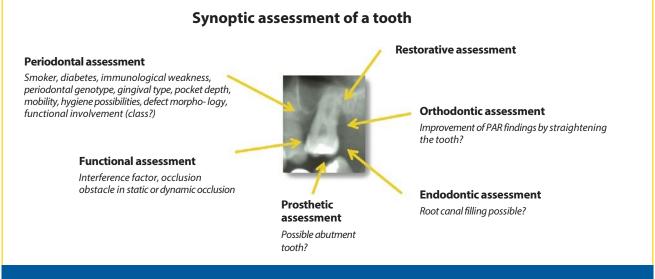


Fig. 1: Exemplary comprehensive prognostic assessment of tooth 27. Only after weighing all possible therapy options with their advantages and disadvantages can a decision be made on the further therapeutic procedure.

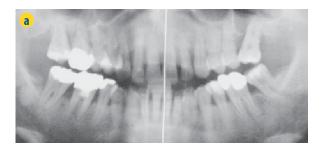




Fig. 2a, b: Due to the strategic importance of the tooth, it was orthodontically straightened after periodontal treatment (GTR therapy), the mandible was set in centric condylar position and prosthetically secured. X-ray findings from 2006 (a) and 2018 (b)

The results of the treatment are to be found in the professional overall assessment (Fig. 2a, b). Figure 2b shows tooth 27 twelve years after periodontal/prosthetic treatment and orthodontic straightening by distalisation.

Based on the scientific data, the goals of preventive practice with regard to caries prophylaxis are defined as follows:

■ Completely avoid carious lesions,

- Restoration only when preventive measures do not result in remineralisation is no longer to be expected,
- Recognise hazards and problems of the patient and deal with them with suitable preventive measures to act on this.

Accordingly, the goals with regard to periodontal prophylaxis are:

■ Avoid periodontitis completely,

- Influence the progression of periodontitis; this means at the same time
  - It is also important to have the necessary expertise on how we can influence the progression of periodontal diseases.

It is important to communicate preventive thinking to the patient as a preventive practice philosophy. Tooth loss is not destiny, early prophylaxis



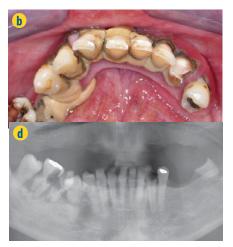






Fig. 3a: Intraoral view from anterior Fig.

3b: Top view of mandible

Fig. 3c: Tartar - detail in the lower jaw on the right

Fig. 3d: X-ray findings (OPG) before the start of treatment. The multiple carious and parodontal lesions are clearly visible.

Fig. 3e: View of the lower jaw after preventive and periodontal pre-treatment and prosthetic restoration. Only teeth 34, 33 and 43, 44 could be preserved and restored with telescopic crowns.

Fig. 3f: Final result with inserted complete denture in the maxilla and telescopic mandibular denture (sublingual bow-free)

Fig. 3a to f: Images of a 48-year-old woman whose last visit to the dentist was 25 years ago. Not every case should immediately undergo extensive extraction therapy. Only after initial preventive therapy, education and motivation can decisions be made about the further course of treatment and the prognosis of each individual tooth in the oral cavity. Since the completion of the remedial measures, the Patient highly motivated to attend regular recall for over ten years

or timely start of treatment are desirable, but at no age is prevention too late (Figs. 3 and 4). These concerns must be communicated to the patient as ultimately the central message of the dental practice.

#### **Prevention strategy**

Prevention does not treat caries itself, but the risk of developing the disease. At the same time, suitable preventive measures can reduce the risk of caries. The disease can be prevented from progressing if there is an initial change; ideally, it can even be regressed. However, it is necessary to know all the risk factors that influence the course of the disease. For this purpose, the caries



Fig. 4a: Intraoral findings 2004, condition after ITN



Fig. 4b: Upper jaw after ITN restoration

Fig. 4a-c: Initial findings of the patient (\*2001) in 2004. Teeth 52-62 were removed in an ITN performed at the age of two years. Up to the time of the initial examination at our clinic, no further dental care was provided.



Fig. 4c: Mandibular situation before the start of treatment



Fig. 4d: Evidence of SM at the start of treatment: the biotope is in a state of dysbiosis or in an extremely pathological biofilm.

Fig. 4e: Detection of lactobacilli at the start of treatment. The number of lactobacilli is a consequence of the untreated cavities and a pronounced sugar consumption. In addition, yeast fungi can also be detected.



Fig. 4f: Upper jaw view 2010 after continuous preventive care



Fig. 4g: View from front 2010



Fig. 4h: Maxillary top view 2016



Fig. 4h: Panoramic radiograph 2016 shows a caries-free dentition



Fig. 4j: Evidence of the SM count: the oral biotope is in homeostasis with a low caries risk

Fig. 4k: Detection of the lactobacilli count: the low number of lactobacilli colonies indicates a tooth-healthy, sugar-reduced nutritional situation.

Fig. 4a to k: The pictures show the course of treatment of a 4-year-old boy from 2004 to 2016 as well as the microbiological findings (lactobacilli on CRT (lvoclarVivadent) now KariesScreenTest (Fa. Aurosan)) in 2004 and 2016. The extremely high caries risk was successfully treated and all future teeth were kept caries-free over the period of twelve years. The subclinical findings show on the basis of the lactobacilli count that the case is not only clinically but also subclinically healthy. The oral biotope is in a homeostatic situation

#### **Bibliography:**

- 1. Page RC, Kornman KS. The pathogenesis of human periodontitis: an introduction. Periodontol 2000. 1997;14:9-11.
- 2. Crass B. The quintessence of caries risk. Berlin: Quintessenz, 1986.
- Laurisch L. Determining the individual caries risk a prerequisite for customised prophylaxis. Oral Prophylaxis. 1988:10:126-33.
- 4. Laurisch L. Praxisorganisation Prophylaxe Vorstellung eines praxisnahen Konzeptes. Prophylaxis Dialogue. 1998;2:8-10.
- 5. Harrel SK, Nunn ME. The effect of occlusal discrepancies on periodontitis. Relationship of occlusal treatment to the progression of periodontal disease. J Periodontol. 2001;72:495-505.
- 6. Laurisch L. Organisation and interaction in the team. In: Bundes-zahnärztekammer (ed.). Qualified prophylaxis in the dental practice. A guideline of the Federal Dental Association. Berlin: BZÄK. 2003;26-8.
- 7. Laurisch L. Prophylaxis is more than PZR. Dental Magazine. 2008;4:32-5.
- 8. Hussein RJ, Schneller T. Factors influencing dental prophylaxis on the part of the dentist, the patient and the health care system. 2017;72(2):134-46.
- 9. Devigne S. Everything checked. Zahnärztl Mitt 2004;94(2):126.
- 10. Götz W. Wo Mitarbeiter ihr Gehalt selbst festlegen [Interview]. Rheinische Post, 23.03.2015. Internet: www.rp-online.de/wirtschaft/companies/goetz-werner-wo-mitarbeiter-ihr-halt-selbst-festlegen-aid-1.4963184. Retrieved: 24.05.2016.

The concepts are sufficient for both prophylactic and parodontal prophylaxis (2, 3).

The result of such a risk diagnosis shows which treatment strategies are necessary to minimise the risk of disease. Here, the practice assumes responsibility by acting and taking action. This contrasts with convention al prevention concepts without risk assessment. Here, the focus is more on counselling and reacting to pathological changes in the oral cavity (4). Ultimately, this conventional preventive approach has the effect of

The concept is that clinical changes are reacted to with a preventive measure. This reaction can then also be equated with damage limitation.

Consecutive care of patients also shows that different age groups have completely different risk factors.

In children and adolescents, caries is the main problem. However, there are also many orthodontic problems that should be treated at an early stage: These include anterior or lateral crossbite or forced bite, but also rotational and tilting positions in which cariogenic microbiotopes can develop. Prolonged sucking, nibbling or mouth breathing cause myofunctional problems that can influence the results of orthodontic treatment.

Older patients often have restoration deficits, problems with crowns and bridges, periodontal findings and problems caused by a decrease in the production of saliva (root caries, changes in nutrition).

Knowledge of age-specific problems therefore facilitates the timely recognition of individual patient requirements and thus enables the targeted selection of suitable preventive treatment and care measures.

#### Organisation of the preventionoriented practice

The discussion is the prerequisite for better prevention-oriented rather than restoration-oriented dentistry. Therefore, it is the dentist's responsibility to explain and familiarise the patient with this practice concept already in the first consultation session. On the basis of the individual patient's findings, the causes of caries and periodontitis can be explained using a concrete example, and at the same time past failures in the preventive field can be explained. This is a motivation factor that should not underestimated. At the same time, the

A functional diagnosis should clarify whether any functional disorders are responsible for periodontal diseases (vertical bone loss, tooth loosening) or cranio-mandibular problems (5).

Before further curative treatment measures are taken, a prophylaxis session should first take place. In this session, it is the task of the qualified prophylaxis specialists to deepen the contents of the discussion at the dentist's appointment, to explain any identified h a z a r d s a n d the associated risk of disease and to derive prophylaxis goals from the individual patient's findings.

Image-enlarging display options, such as the use of an intra-oral camera, are valuable explanatory and motivational aids (6). This makes it possible to show the patient in an impressive way that he or she is affected by certain diseases, which often triggers "concern" in the patient in a trans- ferent sense. This creates an important motivational parameter. If there are functional problems (functional brief findings) or tooth loosening due to incorrect loading of the patient, an occlusal shift therapy should be initiated after completion of the first prophylaxis session to accompany all other treatment measures that are still to be carried out.

At the same time, the patient's life circumstances must also be determined. Experience shows that there are periods in a patient's life in which problems that have nothing to do with the oral situation can nevertheless strongly influence it. This change in the prevalence of dental disease means that the prophylactic measures offered can not only vary between individuals, but also change in the course of a patient's life.

Only after this first prophylaxis session, which as a rule should be scheduled for 60 minutes due to the diverse need for discussion and clarification, will the necessary restorative treatment be carried out.

The patient is then given the opportunity to take preventive measures. Parallel to this, further prophylaxis sessions are arranged, in which the focus is no longer so much on the conversation, but - in addition to answering questions and uncertainties on the part of the patient - on practical preventive measures.

These prophylactic measures have nothing in common with "professional tooth brushing" - which is known as PTC or PZR - but represent more extensive treatment steps.

This may include, for example:

- supra-subgingival plaque removal
- Fluoridation concepts
- Periodontal pretreatment measures■ Periodontal pretreatment measures■
- Periodontal pretreatment measures took
- Nutritional history and nutritional counselling
- Control of subclinical risk parameters, e.g. control for *Streptococcus*

mutans, control of lactobacilli numbers

- Determination of periodontal pathogens Germs
- Application of antibacterial lacquers and Gels (coronal/subgingival), initiation of antibacterial therapies, if necessary using application aids, etc. (7).

In the so-called summary, "professional dental cleaning" is an important part of the preventive care of the patient, but ultimately only a part of the comprehensive treatment measures. The sentence "I'm coming for a dental cleaning", which is often uttered by the patient at the reception, should therefore always be corrected immediately, because "dental cleaning" is not the exclusive content of a prophylaxis session.

After the completion of the first preventive and initial restorative treatment phase, the

In the course of a re-evaluation, a discussion takes place with the patient and the treating prophylaxis staff member to plan further necessary treatment steps. At this meeting, the extent to which further treatment measures appear necessary is discussed.

These could include, for example:

- Advanced PA treatment (SRP)
- open periodontal treatmentsteps (reactive/regenerative)
- mucogingival treatment n e c e s s i t i e s (e.g. cervical coverings, Widening of the fixed gingiva, removal of high-set mucosal bands, gum thickening e.g. by submucosal grafts).

Only after these periodontal and, if necessary, functional therapy measures have been completed should further treatment steps be taken depending on the indication.

Display

## Recognise risk factors and prevent periodontitis

Patient groups at increased risk of periodontitis are teven aware that they are particularly at risk. These include: Diabetics, smokers and senior citizens, as well as people with hormonal changes or those who are permanently stressed.

#### Periodontitis risk test

With our detailed periodontitis risk test, wh would like to support your expertise, contribute to patient education and motivate early visits to the practice.

#### Your recommendation: aminomed

**Natural periodontitis prophylaxis** through antibacterial and anti-inflammatory ingredients of camomile, etc.

**Combined caries protection** through a special double fluoride system of amine fluoride and sodium fluoride with xylitol

Aminomed cleanses very gently (RDA 50)

Particularly suitable for people with sensitive tooth necks\*, sensitive oral mucosa and gum irritations.

#### Request samples now:

Order fax: 0711-75 85 779-71
E-mail: bestellung@aminomed.de

Practice stamp, address

Our jumpnis September 19

Please also send us appointment slips Dr.

Liebe Nachf. GmbH & Co. KG D-70746 Leinfelden-Echterdingen www.aminomed.de



#### SCIENCE

(prosthetic treatment, orthodontic treatment, implant treatment).

Recall secures the treatment goal once it has been achieved and is an indispensable prerequisite for lasting treatment success (Fig. 5).

The example of preventive care over 33 years shows that it is not always possible to maintain hygiene behaviour and nutrition in the long term without remotivation and preventive care (Fig. 6). Over the entire observation period, the patient always had problems with the care of her lower anterior teeth.

In the periodontal field, it is important to recognise changes in the immunological reaction in the dento-gingival problem zone in good time and to react to them with an appropriate preventive measure. In addition to intensifying our preventive measures, further diagnostic care with measures corresponding subsequent therapy are also conceivable (e.g. analysis of the periodontal bacterial flora, if necessary with subsequent antibacterial therapy).

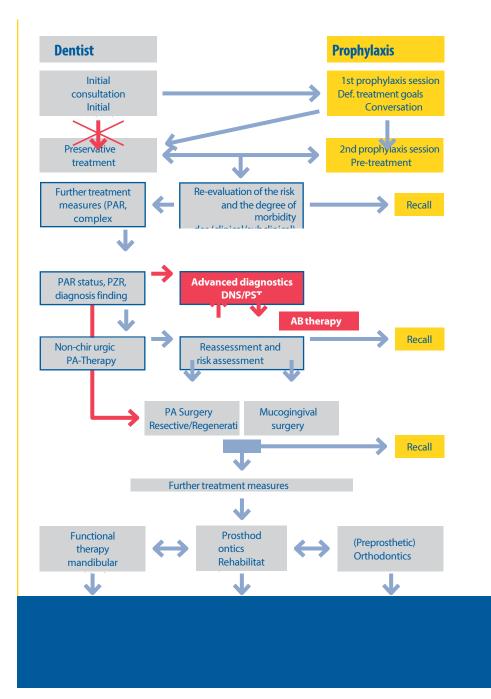
In the field of caries prevention and also the nutritional situation, it often turns out that a permanent change in oral hygiene behaviour (also depending on the nutritional situation of the patient) cannot be established in all cases.

Various circumstances of the patient's life that cannot be influenced by the dental practice can change the risk of disease and thus contribute to a worsening of the oral situation.

#### Motivation

Daily practice shows that the motivation of the practice owner is decisive for the implementation of prevention and thus for its success.

The following factors are particularly important in this context:

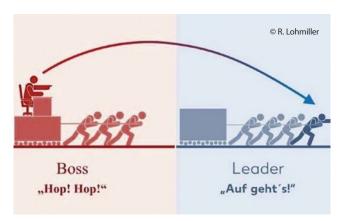


- the experience that the individual dentist has gained in his profession,
- his knowledge of literature or his medical background and the nature of the education (also post-university) that he has received,
- I his values and intuition,
- the tools available in practice,
- the time that the dentist has at all is available in addition to its curative task,
- business constraints and Specifications,

the presence of appropriately qualified personnel to implement the concepts.

The dentist as a leader is therefore ultimately decisive for the successful introduction and implementation of preventive treatment and care concepts with his motivation. For him, it is important to exemplify the values and attitudes he represents every day, which is an impossible task if you do not believe in what you have to represent every day.

This difference between Boss and Leader is illustrated in the following diagram:



#### Communication

This basic attitude of the dentist - and thus ultimately also of the practice team - influences the success of communication with the patient. Authenticity is required here. This is then achieved

The patient's perception can only be successfully conveyed if both aspects of perception - indirect appearance and actual being - are found to be in agreement by the patient. And in the end, this is only possible if everyone believes in what is to be conveyed to the patients. Only the concordance between the spoken word and the basic attitude of the speaker causes a lasting motivational effect - both for the patient and the speaker.

It is known from behavioural psychology that only 7% of a message is effective through words and 93% through the characteristics of the voice (38%) and body language (55%). Therefore, the inner basic attitude - i.e. the belief in the possibilities of prevention - is of decisive influence for the success of the concept (8).

If the verbal and non-verbal message matches, the patient's need for healthy oral conditions can be awakened in conjunction with all other prophylactic and care measures. Only through a change in one's own oral sensitivity and perception will the patient be put in a position to accept the preventive goals and treatment concepts.



Fig. 6: Course of a case over 33 years. After initial prevention, periodontal and orthodontic treatment (overtreatment of the frontal crossbite) and prosthetic treatment, preventive care apart from the first four years - was not always continuous. Regular use of prophylaxis sessions was followed by longer breaks in treatment - lasting up to 2.5 years. (Age of the patient at the start of treatment: 49 years. Age in 2019: 82 years).

of the dental practice and thus find themselves in them.

During the first contact with the patient, it is therefore not immediately important to communicate concepts and our own knowledge to the patient, but rather to listen to what the patient has to say about his or her experiences in his or her previous dentistry. In this way, it is possible to gather further information, which then allows us to find a way into the treatment concept and our prevention strategy depending on the situation - by "picking up the patient with his or her problems".

The core objectives of the discussion message should therefore be to provide professional background information that enables the patient to recognise his or her own illness and to appreciate and accept the planned treatment and care measures as an individual health-promoting measure.

Increasing specialisation in sub-areas of dentistry at far too early a stage, however, makes it more and more problematic for the dentist to provide objective information and advice to the patient detached from his or her own treatment priorities or preferences.

This early specialisation could lead to the fact that a comprehensive prevention or treatment spectrum is not known or can only be communicated to the patient in rudimentary form.

In the following consultation sessions - both with the dentist and with the prophylaxis worker - this is what matters,

Avoid "you" sentences. The dental practice's shared responsibility for the patient's dental health prohibits this type of communication. "You" sentences transfer the responsibility for a possible failure ("You have to brush better here") from the speaker to the person addressed in advance. This does not correspond to the sense of a contemporary preventive practice concept.

The question of a sufficient honouring of the "first" prophylaxis session is justified, but it also blocks the view of further treatment and care measures, which would potentially be possible if the patient would get a different perspective and thus a more differentiated view of his oral health.

#### Leadership style and team

Prevention and preventive measures are often delegable treatment and educational measures. However, the responsibility for the entire treatment remains with the dentist and cannot be delegated.

The implementation requires the practice team to be competent in communicating preventive thinking to the patient. The practice team thus acquires a key position in the practice concept: it becomes a provider of health services in the dental practice and thus becomes jointly responsible for the success of the treatment beyond its previous "assistant activity". In addition, the individual team members are also sympathetic and responsible for the human closeness to the patient.

The importance of the function of the dental team is shown by the fact that 70% of patient losses are due to the behaviour of the practice staff (9). The dentist must create the framework conditions that enable the practice team to fulfil this position as a popular and high performer of the preventive service spectrum.

Authoritarian leadership styles do not create these conditions. Participative leadership of the team makes it possible to initiate changes in the staff from within, which then enables them to take responsibility and work in a quality-conscious manner. Participation in shaping one's own work area and the corresponding opportunity for further training increases motivation and willingness to cooperate.

This "intrinsic" motivation is in diametral contrast to the "extrinsic" motivation. In the case of the latter, a dubious motivation for extra work is created through profit-sharing, which can lead to treatments being suggested out of one's own pecuniary interest, which are not always medically comprehensible.

The following qualities are important in a functioning practice team:

- the motivation (e.g. "exciting") Tasks).
- Give each other recognition,
- the ability to combine different talents to use (strong helps weak),
- Introduce and use new ideas,
- the opportunity to develop its own working areas themselves,
- a clear distribution of tasks,
- Maintain open communication,
- Be able to criticise and have the courage, criticise themselves (including the boss),
- Have confidence in the team members.

For the dentist, open communication means having to accept criticism, as the ability to accept criticism is a decisive prerequisite for teamwork.

"Hierarchical leadership is no longer in keeping with the times; people want to feel valued. This can be done through dialogue, not through orders and commands" (10).

#### Conclusion

In all the areas described above, the authenticity of the dentist and the practice team ultimately determines whether a preventive practice will be successful or not. As in a symphony orchestra, each individual contributes to the overall picture, but the responsibility for the entire concept lies with the dentist as conductor.

#### Dr. med. dent. Lutz Laurisch

Practice Dres. Laurisch Arndtstr. 25 41352 Korschenbroich E-mail: Lutz@dr-laurisch.de

# 10 Jahre minilu.de Großes Jubi-Game

Price

**Price** 

minilu.de - the clever online depot with more than 45,000 brand-name articles at mini prices - is celebrating its 10th anniversary this year: with exciting promotions, great offers and a super competition. You and your entire team have the chance to win one of several thousand attractive prizes.

All practice and laboratory teams who want to take part in the minilu Jubi-Game should register quickly as a team at minilu.de/competition. There you will also find our monthly tasks that you have to solve. Each correct solution earns you points. Extra points are awarded for special tasks. At the beginning of December, the lucky fairy will draw the winners from all teams that have achieved the minimum number of points for the main prizes.

#### **New York, New York!**

The first prize in the minilu Jubi-Game is a long weekend in one of the most fascinating cities in the world: New York City. Including flight, hotel and programme with Broadway show, shopping, helicopter flight and much more.

#### Pink break time

minilu is giving a total of three practices and laboratories a stylish makeover for the social area in the unmistakable minilu look.

Qualified architects provide new splendour with high-quality furnishings.

seit 10 Jahren mini

... and thousands of other prizes.

Abonniert jetzt den Newsletter auf minilu.de und bleibt so immer auf dem Laufenden!